**Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.

Reserve
.9
c73 A

LIBRAR
RECEIVED
FEB 15 194
U. S. DEPT. OF AGRI

UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics

-O-

Agricultural Economics Bibliography No. 31
Part IV

# CALIFORNIA

An Index to the State Sources of Agricultural Statistics

- - - - - -

## PART IV.- LAND, FARM PROPERTY, IRRIGATION, AND MISCELLANEOUS ITEMS

An Index to the Official Sources

Compiled by Louise O. Bercaw,
Under the Direction of Mary G. Lacy,
Librarian, Bureau of Agricultural Economics

Washington, D. C.
April, 1931

# CONTENTS

| | Pages |
|---|---|
| Preface .................................................. | III-V |
| Sources Consulted ........................................ | VI |
| Publications Indexed ..................................... | VII-XLII |
| Land, Farms and Farm Property ............................ | 1-51 |
| Mortgage Debt ............................................ | 51-52 |
| Taxes .................................................... | 52-53 |
| Population ............................................... | 53-54 |
| Labor .................................................... | 54-63 |
| Miscellaneous Items ...................................... | 63-66 |
| Irrigation ............................................... | 66-85 |
| Reclamation and Drainage ................................. | 85-86 |
| Crops Grown Under Irrigation ............................. | 86-120 |
| Index .................................................... | 121-124 |
| Abbreviations ............................................ | 125 |

# PREFACE

This is Part IV of the third of a series* of indexes or source books of agricultural statistics issued by the Library of the United States Bureau of Agricultural Economics. It is issued in cooperation with the College of Agriculture of the University of California.

This Index to the state official and unofficial sources of agricultural statistics of the state of California was undertaken with the idea of issuing it in one volume as were the Alabama and Oklahoma indexes. When the indexing of the collected references was finished it was realized that it would be impossible to publish the Index in one volume because of its size, so it was decided to issue it in five parts. Part I includes the fruit, vegetable and nut crops of the state. Part II includes the crops other than fruits, vegetables and nuts. Part III includes livestock and livestock products. Part IV, which is the present volume, includes land, farm property, labor, Delhi and Durham state land settlements, irrigation, and related subjects. Part V is a Guide to Some Unofficial Sources of California Agricultural Statistics and was compiled under the direction of Mrs. M. J. Abbott, Agricultural Reference Librarian, University of California Library. The first four parts of the index include references to all state official sources of agricultural statistics that the compilers could find from the time of beginning the index in 1925 through December, 1927. The index, therefore, contains no references to publications issued later than 1927 with the exception of certain of the crop reports and several Special Publications of the State Department of Agriculture which were published in 1928 but which contain statistics for 1927. A brief description of each publication analyzed is given in the list of "Publications Indexed." See p. VII-XLII.

A classified arrangement always presents a certain amount of difficulty to both the compiler and the user of a bibliography. To obviate this difficulty to some extent an alphabetical index will accompany each volume of this Index. In some cases it was hard to decide whether to classify certain crops with the vegetable crops or with the crops other than vegetables. In the case of beans and peas it was arbitrarily decided to classify them with the vegetables, although it is realized that some of the items in this section refer to the use of these crops as field crops and not as vegetables. Parts I, II, IV-which includes a section on irrigated crops- and V must be used together, therefore, in order to get a complete picture of the state official and unofficial sources of the statistics of the field, fruit, vegetable, and nut crops of the state.

---

*The first two indexes in the series are: Alabama, An Index to the State Official Sources of Agricultural Statistics, compiled by Margaret T. Olcott and issued as Agricultural Economics Bibliography No. 15; and Oklahoma, An Index to the State Official Sources of Agricultural Statistics, compiled by Icelle E. Wright... including a List of the Unofficial Sources of Oklahoma Agricultural Statistics, compiled by Margaret Walters and issued as Agricultural Economics Bibliography no. 21.

The compilers of this Index have tried to index the statistical tables as accurately as possible. The task, however, was a difficult one. Sometimes it was practically impossible to tell just what was meant by the table headings or the dates used and often there was nothing of an explanatory nature in the text. Users of this Index should remember that it is merely a guide to the sources of certain statistics and that before they use the statistics they should carefully examine the accompanying text or any notes which may explain the terms used and the scope of the compilation.

Publications which quote tables from the U. S. Census reports usually quote them as of the Census year, although the figures are in many cases for the preceding year. For instance, the 1920 Census gives production figures for 1919. The Census tables should be examined to determine which year is covered in the report. When figures are quoted for Census years, such as 1850, 1860, 1870, 1880, etc., they are probably taken from the U. S. Census tables. When credit has been given in a table it has been indicated after the citation thus: (U.S. Census), (U.S.D.A.), etc.

No pagination has been given in the citations for certain Census reports which have been reprinted in the Statistical Reports of the State Department of Agriculture from year to year. The citation is usually given thus: In Calif. Dept. Agr. Statistical repts. 1914-1921.

Statistical tables only have been indexed; no attempt has been made to index untabulated statistics occuring in the text. Undated tables have been indexed when the exact or probable dates could be ascertained. In case of doubt, interrogation marks follow the dates assigned. References to the following kinds of statistics have been omitted:

1. Forecasts, preliminary estimates, and condition reports. These appear in the crop reports. Inasmuch as references are given to final estimates it seemed unnecessary to list the references to the preliminary estimates.
2. Statistics of experimental plots.
3. Forestry statistics.
4. Climatological data.
5. References to statistics of the United States as a whole, unless the figures for the state are given in comparison.
6. Statistics of inspection service.
7. Statistics of fertilizer analysis.

Among the publications examined, which has not been indexed since the few statistics that it contains are reprinted from other sources, but which may be mentioned here is "California, Its Products, Resources, Industries, and Attractions, What it Offers the Immigrant, Homeseeker, Investor and Tourist," published by the California Louisiana Purchase Exposition Commission in 1904. The California Alaska-Yukon-Pacific Exposition Commission and the California Lewis and Clarke Exposition Commission also issued publications with similar titles.

# ACKNOWLEDGEMENT

We acknowledge with many thanks the help received from Mr. S. W. Shear of the College of Agriculture of the University of California, who made many valuable suggestions and lent us several rare pamphlets; Mrs. M. J. Abbott, Agricultural Reference Librarian of the University of California; the various libraries mentioned on p. VI; Miss Adelaide R. Hasse, whose Index of Economic Material in Documents of the States of the United States (California) helped the compilers more than she will ever know; and others who in various ways contributed to the compilation and preparation of this Index.

Mary G. Lacy, Librarian,
Bureau of Agricultural Economics,
United States Department of Agriculture.

April, 1931.

## SOURCES CONSULTED

1. Card catalogues in the following libraries:
   - U. S. Department of Agriculture.
   - U. S. Department of Agriculture. Bureau of Agricultural Economics.
   - Library of Congress.
   - New York Public Library, Economics Division.

2. Bibliographies:

Bowker, Richard Rogers. State publications; a provisional list of the official publications of the several states of the United States from their organization; comp. under the editorial direction of R. R. Bowker. New York, The Publishers' weekly, 1899-1908. 4 v. in 3.

Part 3. Western states and territories.

California development association. A survey of economic research and sources of data regarding California. A reference catalogue and index. Sacramento, San Francisco, Los Angeles [1926] 30 [2] p.

Arranged in five groups, Federal agencies; State, county and municipal agencies; Universities, foundations and institutions; Trade, marketing, civic and other commercial organizations; and Private agencies.

Hasse, Adelaide Rosalie. Index of economic material in documents of the states of the United States: California, 1849-1904. Prepared for the Department of economics and sociology of the Carnegie institution of Washington. [Washington, D. C.] Carnegie institution of Washington, 1908. 316p. (Carnegie institution of Washington. Publication no. 85 (California))

# PUBLICATIONS INDEXED

Adams, Richard Laban. Farm management notes (for California) ... 7th ed. Berkeley, Cal., Distributed by Associated students' store, University of California, 1921. 182p.

Earlier edition has title: Notes on methods and costs, California crop production. Issued (multigraphed) as Agronomy project no. 337. California, University, College of agriculture, Division of agronomy.

"The purpose of these 'Notes' is to provide a collection of data covering California agricultural and farming conditions for use by newcomers into the State and by students of farm management, so that they may be better equipped to pass upon the commercial possibilities of the various farming industries of more outstanding importance and to know something of the financial requirements." - Preface.

The book is in eight parts. Part I contains various agricultural statistics (number and size of farms, number and value per head of livestock, production and value of crops, etc.) which are taken from Federal, state, and commercial sources. These have been indexed. Part II is Methods and Costs of California Crop Production. In addition to information on methods tables are given showing operating costs per acre of numerous crops for normal (prewar) and high (postwar) periods. These have been indexed. Part III gives somewhat similar data for the dairy, beef cattle, hog, sheep, and poultry industries. These have been indexed. The rest of the book, which has not been indexed, contains information on the work capacity of men, stock, implements and farm machinery; costs of farm equipment and supplies; miscellaneous farm management data; farm management outlines for reporting upon farm property, making financial analysis, valuing farm lands, etc.; and a list of "selected farm management literature."

California. Agricultural experiment station, Berkeley. Bulletins 1-445. [1884?]- 1927. Berkeley, Calif.

Previous to 1884 results of experimental work were published as a part of a general series of publications of the University of California as Bulletins No. 8,17,23,26,32; Biennial reports 1876-77; 1878-79; 1881-82; Annual reports 1880-82. These publications contain no statistics.

No. 13 and 43 are in Report of the Viticultural work ... 1883/84 and 1884/85 (appendix no. 4, to report for 1884) p.70-72 and p.74-77.

Rev. editions of nos. 123 and 137,241 and 246,294,297.

Many of these bulletins contain statistics that have been included in this index. Some bulletins contain only a few statistics but a number of them contain many tables and charts. Quite a few give cost data of various types. Cost of production of crops, of dehydration, of spraying and dusting orchards, of tractor power, of drying walnuts, etc., are samples of some of these costs. Many other tables containing miscellaneous data such as acreage, yields, prices, returns and shipments of various commodities have been indexed.

Among the bulletins that contain many statistical tables are two in the Series on California Crops and Prices- Apricots (Bul.423) and Beans (Bul.444), and Bulletins 413, The egg and poultry industry; 419, Cantaloupe industry with special reference to the Imperial Valley; 429, The economic status of the grape industry; 437, The dairy industry; and 445, Economic aspects of the apple industry. These are all a part of a series of statistical-economic analyses of the economic situation of the more important California agricultural products. Earlier publications in the series were published by the California University, College of Agriculture, Agricultural Extension Service as Circulars 1 and 5. They are on peaches and lettuce. Work on this important series is still in progress and bulletins on watermelons, pears, oranges, lemons, grapefruit, prunes, and possibly others, have been issued since the compilation of this Index.

California. Agricultural experiment station, Berkeley. Circulars 1-311. Berkeley, 1903-1927.

Revised editions of Nos. 87,110-111,113,154,159,161,164,212,220. No. 158 revised and reprinted.

Also unnumbered circulars:

Hilgard, E. W. The extermination of weeds. [1898]

Bioletti, F. T. Brown rot of stone fruits [1901]

Bioletti, F. T. A warning to olive growers [1901]

California. Agricultural experiment station. The new fertilizer law [1903]

The majority of these circulars contain only a few statistical tables. Many of them give some form of cost data such as cost of crop production, of handling crops, of equipment and labor, of brooding chicks, of pumping plants, etc. Various other tables containing miscellaneous data have also been indexed.

California. Agricultural experiment station, Berkeley. Hilgardia, a journal of agricultural science ... v.1, no. 1 May, 1925 - v.3, no.3 Dec. 1927. Berkeley.

Published by the California Agricultural Experiment Station. Successor to: California. Agricultural Experiment Station. Technical Papers (not indexed).

These journals are of a technical nature and contain very few statistics. V1, no. 18, contains a table and plate showing acreage of various crops - principally fruit, nuts and grapes and acreage classified by types of soil.

California. Agricultural experiment station, Berkeley ... Report of the viticultural work during the season 1883-4 and 1884-5 [1885 and 1886, 1887-89, 1887-93] Sacramento, 1886-96. See California. Agricultural Experiment Station. Report.

California. Agricultural experiment station, Berkeley. Report of work ... 1876-1925/26. Sacramento, Berkeley. 1877-1926.

No reports published 1904/05-1911/12.

1876/7-1888/90. Reports of the College of Agriculture, University of California. Sacramento, 1877-90.

1883/4 and 1887/93. Reports of the viticultural work. Sacramento, 1886-1896.

For list of publications of the agricultural experiment station see: Report for 1898-1901, pt.2 (gives list for 1877-1902); Bul. No. 80 of the Office of Experiment stations, U. S. D. A. (publications previous to 1884); Report for 1917-1918 gives lists of publications from 1877-1916.

Variations in titles appear.

These reports contain few statistics besides tables of temperatures and rainfall, which have not been included in the index.

Annual reports of the Director of Agricultural Extension 1920/21-1922/23 are included in above reports. They contain practically no statistics.

California. Agricultural extension service. See California. University. College of agriculture. Agricultural extension service.

California. State agricultural society. See California state agricultural society.

California. Department of agriculture. Monthly bulletin, v.1-16, Dec. 1911-Dec. 1927. Sacramento, 1911-1927.

v.1(1911)-v.8, no.7, July, 1919, were issued as the Monthly Bulletin of the State Commission of Horticulture.

v.12, no.7-12; v.13, no.1-6; no.7-12; v.14, no.1-6, no.7-12; v.15, no.1-6, no.7-12, were issued in one number each.

For preceding series see Bulletin of the State Board of Horticulture.

The 8 annual reports of the Department of Agriculture, 1919/20-1927 have been issued in the Oct.-Nov. 1920, the Nov.-Dec. 1921 and 1922, and the July-Dec. 1923, 1924, 1925, and 1926 and Dec. 1927 numbers of the Monthly bulletins.

These bulletins contain numerous statistical data of various kinds which have been indexed. Beginning with the May 1913 issue through the October 1919 issue they include the "monthly crop reports and statistics." These are mainly condition reports which have not been indexed but sometimes the acreages of the principal fruits and farm crops in the state are given.

v.8, no.4, Apr. 1919, is entitled "California crop distribution and estimates 1918," and is a "Bulletin dealing with the acreage, distribution, tonnage, and value of commercial fruit and vegetable crops in California."

The Dec. 1920, the Nov.-Dec. 1921, the Jan.-Feb. 1923, the July-Dec. 1923,1924,1925 and 1926 and Dec. 1927 issues of the Monthly Bulletin contain the annual California crop reports for 1920 through 1927.

California. Department of agriculture. Report [1st]-8th, 1919/20-1927. Sacramento, 1920-1928.

These reports are published in the Oct.-Nov. 1920, the Nov.-Dec. 1921 and 1922, and the July-Dec. 1923,1924,1925, and 1926 and Dec. 1927 numbers of the Monthly Bulletin of the Department of Agriculture.

Circular no. 3 of the Division of Animal Industry (Calif. Dept. Agr. Special Publication no.10) supplements the dairy report rendered as part of the Annual report, 1919/20.

California. Department of agriculture. Report of stallion registration, 1919/20-1925/26. See Calif. Dept. of agriculture. Special publications no. 14,23,41,48,49,59.

For earlier reports See Calif. Stallion registration board. Annual report.

California. Department of agriculture. Special publications 1-76, 80-83, 86. Sacramento, California state printing office, 1919-1928.

No. 1 was issued by the California State Commission of Horticulture.

There are two special publications numbered 66; one is the United States Standards for Grapes, 1926, issued by the Bureau of Fruit and Vegetable Standardization, California State Department of Agriculture in cooperation with the U. S. Dept. of Agriculture, Bureau of Agricultural Economics. The other publication is entitled Economic Poisons (1925-1926) by Warren G. Marshall and others.

Publications no. 6,11,28,38, and 47 contain numerous tables on acreage, production, and value of grapes, wines, raisins and other grape products. They also contain data on weather conditions and give dates of lawful ripeness of grapes. Adequate car service for shipping grapes and grape products is discussed in the later reports. Forecasts of car requirements are made and summarized in tables. Tables of imports and exports which are given have not been indexed unless figures are for California.

No. 6 is The California Grape Industry, 1919 (with outlook for the 1920 grape crop) Report no.1, June 1, 1920.

No. 11 is Status of California Grape Industry, June 30, 1921. Report no.2. Aug. 15, 1921.

No. 28 is Status of California Grape Industry, June 30, 1922. Report no.3. 1922.

No. 38 is The California Grape Situation, 1923. A preliminary report, June 1, 1923.

No. 47 is The California Grape Situation, 1924. July 1, 1924.

Publications no.9,16,33,43,55,63,74, and 86 are California crop reports for the years 1920-1927 inclusive, issued by the Calif. Cooperative Crop Reporting Service, a "State unit of the Division of Crop and Livestock Estimates, Bureau of agricultural economics, U. S. Dept. of agriculture cooperating with the Calif. State dept. of agriculture." These reports give the annual summary of estimates of acreage, crop production, prevailing farm prices (as of Dec. 1) and total value to the producer with comparisons of previous years for the various field, vegetables and fruit crops. They also contain tables showing monthly composite condition of all important crops, carlot shipments of vegetables and farm labor wages. Each of these publications except no. 9 concludes with a Summary of the U. S. Crop Report on the important farm crops. This table has not been indexed. Publications no. 43,55,63,74, and 86 also include tables on the number of the different classes of livestock with estimated farm value per head. Estimates of the acreage, bearing and nonbearing, of the various fruits are also given in these publications. Other data are sometimes given. Final estimates of the acreage, average yield per acre, production and value of the principal crops of the entire United States, and of the different states for each year with comparisons for the preceding year, are to be found in the December numbers of the 1920 and 1921 Monthly Crop Reporter, Dec. 23, 1922 and Dec. 29, 1923 numbers of Weather, Crops and Markets, Dec. 1924, 1925 and 1926 Crops and Markets Supplement, and Dec. 1927 issue of Crops and Markets published by the United States Department of Agriculture.

Publication no. 10 is California Dairy Products (1919-1920), Division of Animal Industry Circular no.3. It contains tables on production and value of dairy products with descriptive accounts, also lists of creameries cheese factories, milk plants, etc. Publications no.21,30,39,50,62,71, and 83 are Statistical Reports of California Dairy Products for the years 1921-1927 inclusive. They contain tables on production and value of dairy products, also list of "California Dairy Products Plants."

Publications no.14,23,41,48,49,59 and 68 are Reports of the Stallion Registration Board for the fiscal years 1920-1926 inclusive, contributed by the Division of Animal Industry. They contain directories of licensed jacks and stallions in the state; tables showing number of stallions and jacks registered and number in state; also stallion registration law and list of recognized foreign breeds.

Publication no.19 is Growing and Shipping California Lettuce. Feb.1922. This publication contains data on shipments of lettuce, tentative grades for head lettuce (for Calif.) and definition of grade terms and standard terminology.

Publication no.31 is Growing, Harvesting and Marketing California Bermuda Onions. Jan. 1923. Contains tables on acreage and shipments.

Publication no.36 is Growing, Handling and Marketing California Celery. June 1923. Contains tables and a chart on shipments, charts on production and marketing, and a table and map on acreage.

Publication no. 37 is Growing, Packing and Shipping Tomatoes in California. 1923. Contains tables on acreage, production and shipping and a chart on tomato shipping seasons.

Publication no. 65 is The Epizootic of Foot and Mouth Disease in California. 1926. This gives a report of the epizootic of foot and mouth disease in California from Feb. 17, 1924-June 10, 1926, including control and eradication. Tables show the number and species of animals slaughtered, per cent slaughtered and their appraised value.

California. Department of agriculture. State department of agriculture news. v.1-8; July 26, 1919-December 25, 1926. [Sacramento, 1919-1926] Mimeographed.

Ceased publication with v.8 (letter Apr. 24, 1927).

Weekly, v.1-4; fortnightly, v.5-8.

Superseded Weekly News Letter of the State Commissioner of Horticulture (not indexed).

V.1-7, no.22, July 26, 1919-Oct. 31, 1925 have title: Weekly News Letter, V.2, no.2-v.8, no.2, Jan. 10, 1920-Jan. 23, 1926, issued by the Division of Plant Industry, Dept. of Agriculture.

Contains few statistics. Scattered tables of fruit plantings, shipments, and value of a few leading crops are indexed. One long table showing value of field and orchard crops produced in the state, an estimate of annual loss caused by insect pests and annual expenditures in the control of insect pests has also been indexed.

California. Department of agriculture. Statistical reports of California dairy products for the years 1921-1927. See California. Dept. of agriculture. Special publications no. 21,30,39,50,62,71,83.

California. Department of agriculture. Division of animal industry. California dairy products (1919-1920). See California. Dept. of agriculture. Special publication no. 10.

California. Department of agriculture. Division of animal industry. Circulars, 1-5. Sacramento, 1920-1921.

Numbers 1-3,5 are Special Publications 5,7,10,12 of the California Department of Agriculture. For description of those indexed see California. Department of Agriculture. Special Publications. Circular No.1 is Some Provisions of California Laws on Dairying (Revised and issued as Special Publication No. 26); No.2 is Some Important Factors in the Production of Good Milk and Cream; No.3 is California Dairy Products (1919-1920); and No.5 is The California Meat Inspection Law. No. 4 is probably Special Publication No. 14 - Report of Stallion Registration For the Fiscal Year Ending June 30, 1920" as the title page reads "Special Publication No. 4, Contribution from the Division of Animal Industry."

California. Department of agriculture. Division of plant industry. Weekly news letter. See California. Dept. of agriculture. State department of agriculture news.

California. State board of agriculture. Report. See California. State board of agriculture. Statistical report.

California. State board of agriculture. Statistical report, 1st-68th, 1858-1921. Sacramento, 1859-1923.

1858-1904 are Transactions of the California State Agricultural Society.

1905-1910 are Reports of the California State Agricultural Society.

1911-1912 are Reports of the California. State Board of Agriculture (1912 is Annual Report)

1913-1921 are Statistical Reports of the California State Board of Agriculture.

No reports were published for 1862, 1896-98, 1902-03. Recording Secretary's and Treasurer's reports for 1862 are printed in the Transactions for 1863.

This set of reports contains much statistical data, so much that it is impossible to describe all of it in detail. The early volumes contain more or less scattered statistical tables which have been indexed but which are not here described. Meteorological data are given in practically all of the Transactions of the California State Agricultural Society. In the 1859 volume there are statistical tables relating to grains, peas, beans, etc., number and value of various kinds of cattle slaughtered, and farm wages. The Transactions for 1863-1879, with some exceptions, contain tables of statistics compiled from official reports of county assessors and returned to the surveyor general. These reports contain data such as acres of land inclosed and cultivated, acreage and production of crops, number of different kinds of live stock, number of fruit trees, assessed value of property, industrial data, etc.

Transactions for 1873,1875 and 1876 contain tables "Prices in gold of 'A 1' wool in San Francisco and New York" for a series of years. The Wool Report of E. Grisar & Co. is given in the Transactions for 1875-1878. Friedlander's Annual Grain Circular is printed in the 1878,1886-1895 Transactions. George W. Meade & Co.'s Annual Review of the Dried Fruit,Raisin ... Crops of California appears in the 1885-1888 volumes.

The 1904-1910 volumes devote much space to tables showing "Resources of the State of California by Counties." These contain all sorts of statistical data, such as acres of land assessed, value of country real estate, number and value of livestock, number of fruit trees, crop production, etc.

Reports for 1911-1921 are devoted mainly to a "Statistical Summary of the Production and Resources of California." These consist of compilations from U. S. Department of Agriculture, Census, and state sources of all sorts of statistical data relating to agriculture, mining, lumber, population, etc. Many very early statistics are given in the 1911 report which are not given in the succeeding reports. However, many census figures are repeated in each report. In addition to the summary tables, the 1911, 1914-1921 reports also contain statistical summaries for each county.

This set, particularly the later volumes, contains many tables showing California production, and exports and imports of various crops. Export and import figures have been omitted as in every table examined they have checked with United States total figures, although it is realized that for some crops, such as grapes, the figures are really for California.

California. State commission market. Annual report. 1st-4th, 1916-1919. Sacramento, 1916-1920.

1916 has title: First annual report ... for the year ending December 1, 1916.

3d-4th have title: Annual report of the State market director ... and 2d-3d Annual report, State fish exchange ...

These reports contain few statistics but they do give in some detail accounts of the different marketing organizations which the market commission has either initiated or been actively identified with during these years.

The results of a market survey made in New York and Chicago are given in the 1st report and show the prices received for California fruits by different classes of dealers. These tables have been indexed. Prices of dried fruits as quoted in California Fruit News Aug. 23, 1919 have also been indexed.

In the third annual report is given a report of the Poultry Producers of California which contains two "original and extremely valuable charts which show costs of egg production in Southern California for a series of years, and which have commended national attention among poultry men." - p.21.

California. State commission market. Bulletin no. 1. Sacramento, 1916.
Bulletin no. 1 - Asparagus in California. The culture, marketing problems and history compiled ... by W. F. Bailey. 1916. 23p.

The statistics indexed show the production of asparagus; quantity used by canneries; Eastern shipments; receipts on market; prices - wholesale, retail and received by growers - output of California canneries; total cost to the consumer and daily (date given) receipts and prices at several markets.

California. State conservation commission. Report of the conservation commission of the state of California. January 1, 1913 ... Sacramento, 1912. 502p. & portfolio of maps.

This publication gives a report of the natural resources of the state such as water and water rights, forestry, school lands, minerals, irrigation resources, etc. There are a great many statistical tables, most of which are undated. The year 1912 with a question has been used in this index for all such undated tables. The tables indexed include statistics of the acreage of agricultural and irrigated lands in numerous sections of the state (some tables show irrigated land only; others also give estimated area that will ultimately be irrigated); drainage area and acreage of forest and timber lands. Exhibit "A" on p. 430-433, gives detailed data of acreage of timber land and the counties in which such land is situated. There is one table showing assessed value per acre of timber and cut-over land and the tax rate per $100.

There are numerous tables and illustrations which have not been indexed. These include data showing precipitation; disposition of surplus water; discharge of artesian wells; detail map of San Bernardino Valley; school land area within national forest reserve, area outside national reserve and total area belonging to the state, April 1, 1912 (p.434-480); and dredging data (Exhibit "E", p.481).

The portfolio of maps which accompanies this publication is composed of five large maps, one of which shows the timbered area of the northern half of the state, three are irrigation maps, and the other shows the school lands owned by the state.

California. State board of control. California and the Oriental: Japanese, Chinese and Hindus. Report of the State board of control of California to the Governor, June 19, 1920 ... Revised to Jan. 1, 1922. Sacramento 1922. 250p.

This is an official report "on the subject of Oriental immigration, population and land ownership." Some agricultural statistics found in Section III on "Land" are indexed. They include a table on lands occupied by Orientals, acreage and value of Japanese farm products; value of California crop production, and percentage of crops delivered to canneries supplied by Japanese growers.

One undated table of land areas and land utilization and 5 relief maps showing Oriental occupancy are not indexed. In the appendix of the report are three tables: (1) California farms under Japanese management; (2) acreage, total value and value per acre of crops raised by Japanese farmers and (3) wages of white and Japanese common laborers. These have been indexed.

California. State controller. California. Assessed value of property and an exhibit of the financial condition of the state, counties, and principal cities, for 1881, compiled by D. M. Kenfield, state controller. Sacramento, 1881. 73p.

The tables in this pamphlet have been compiled from reports furnished by the county auditors. The following statistics only have been indexed: acres of land assessed, assessed value of real estate other than city and town lots, and assessed value of improvements on the same.

California. State controller. Reports, 1849/50-1924/26.

Early reports are annual and the later ones are biennial.

These reports contain practically nothing in the way of agricultural statistics. However, practically all of the reports, except those from 1914/16 to date, contain tables which include (for the state and each county) acreage of land, value of real estate (or land) other than city and town lots, value of improvements on the same, and value of land without improvements. In the later reports only acreage of land has been indexed.

Like other official reports of the state of California these reports, in addition to being issued separately, are printed in the appendices to the Journals of the State Legislature. No separate reports having been found for the following they were consulted in the Documents set.

1849/50 in Appendix to Senate and Assembly Journal, 1851.
1850/51 in Appendix to Senate Journal, 1852.
1851/52 in Appendix to Senate Journal, 1853, Document No. 1.
1852/53 in Appendix to Assembly Journal, 1854, Document No. 2.
1853/54 in Appendix to Senate and Assembly Journal, 6th sess., 1855.
1854/55 in Appendix to Senate Journal, 7th sess., 1856.
1855/56 in Appendix to Senate and Assembly Journal, 8th sess., 1857.
1856/57 in Appendix to Senate Journal, 9th sess., 1858.
1857/58 in Appendix to Senate and Assembly Journals, 10th sess., 1859.
1858/59 in Appendix to Senate and Assembly Journals, 11th sess., 1860.
1859/60 in Appendix to Senate and Assembly Journals, 12th sess., 1861.
1860/61 in Appendix to Senate and Assembly Journals, 13th sess., 1862.
1861/62 in Appendix to Senate and Assembly Journals, 14th sess., 1863.
1871/73 in Appendix to Senate and Assembly Journals, 20th sess.,v.1,1874.
1873/75 in Appendix to Senate and Assembly Journals, 21st sess., 1876.
1875/77 in Appendix to Senate and Assembly Journals, 22d sess.,v.1,1878.
1877/79 in Appendix to Senate and Assembly Journals, 23d sess.,v.1,1880.
1879/80 in Appendix to Senate and Assembly Journals, 24th sess.,v.1,1881
1880/82 in Appendix to Senate and Assembly Journals, 25th sess.,v.4,1883

California. Cooperative crop reporting service. [California crop and livestock reports] San Francisco and Sacramento, March 8, 1919-Feb. 15, 1928. Mimeographed.

"California crop and livestock reports" is the title which has been used in this Index to describe the mimeographed reports on crops and livestock issued by the California Cooperative Crop Reporting Service. Titles of these reports vary and the reports are issued monthly and semi-monthly. There are also annual crop and livestock summaries. For summaries for 1920 and 1921 see California Crop Reports (printed) for 1920 and 1921 issued by the California Crop Reporting Service. For complete annual reports for 1920-1927 see Special Publications no. 9,16,33,43,55,63, 74, and 86 of the California Department of Agriculture.

Judging from the dates of the reports which are on file in the U. S. Bureau of Agricultural Economics Library the first reports were issued by the Bureau of Crop Estimates, U. S. Department of Agriculture. From Aug. 1920-date they have been issued cooperatively from the Office of the Agricultural Statistician, Sacramento, by the United States Department of Agriculture and the California Department of Agriculture.

These reports contain monthly reviews of crop conditions, semi-monthly crop and livestock notes, and preliminary estimates or forecasts of production of principal crops compared with other leading states and preliminary estimates of production of principal crops for the United States. These of course are subject to revision. Preliminary estimates and forecasts, in most cases, have not been indexed. Reports issued more or less regularly and which have been indexed are: monthly reports of stocks of grain on farms March 1 (California compared with the United States); monthly price of cattle and sheep on ranch, live weight; annual reports of livestock - number and value (issued in January or February); and production and value of various crops. Occasional other statistics have also been indexed.

California. State dairy bureau. Reports, 1st-12th, 1895/96-1916/18. Sacramento, 1896-1918.

All reports are biennial except the first which is for the period May 1, 1895 to Oct. 1896. 7th report not published. In 1919 the Department of Agriculture was created. It took over a number of bureaus and boards, among them the State Dairy Bureau. For later reports of this Bureau see reports of the California Department of Agriculture.

These reports contain data such as the following: butter and cheese production, price and value of butter and cheese, receipts of butter and cheese on San Francisco market, itemized and total value of dairy products in the state, and directories of creameries in operation in the state.

California. Engineer department. Report of state engineer to the legislature of the state of California - session of 1880-1881, 1883-1884, 1887.

The first report covers the period May 1878 - Dec. 31, 1879 and the year 1880. The report for 1880 is in five parts. It is the only one of the reports which contains any agricultural statistics. Acreages irrigated have been included in the data indexed.

The report for 1881 is in five parts. The Report to the Legislature of Operations for Years 1883 and 1884 and the report for the session of 1887 (5th progress report) also contain no statistics of interest.

California. Office of state engineer. Report of the state engineer of California on irrigation and the irrigation question ... Sacramento 1886-1888. 2v.

A work planned for 4 volumes. V. 3 and 4 not published.

The report in v.1 is made in three parts. Part I, History, customs, laws and administrative systems relating to waters, water-courses and irrigation in France, Italy, and Spain. Part II presents the facts with respect to irrigation in California. Part III, discussion of the irrigation question in California. Contains no statistics.

V.2, Irrigation in Southern California "is an account of ... [irrigation] for Los Angeles, San Bernardino and San Diego counties, brought down to the fall of 1888." Tables showing acreage irrigated and rate for irrigation have been indexed.

California. Department of engineering. Bulletin 1-9. [Sacramento] 1915-1921. Succeeded by California. Dept. of public works. Division of engineering and irrigation. Bulletin.

Bulletin 1 is Progress Report of Co-operative Irrigation Investigations in California, 1912-1914. For descriptive account of this bulletin see note for Calif. Dept. of Engineering. Report, 4th, 1912/14, from which it is reprinted.

Bulletin 2 is Irrigation Districts in California, 1887-1915. A state map showing the location of active or recently organized irrigation districts and a statistical list of irrigation districts (showing acreage) organized under the Wright Act of 1887 are the only items that have been included in this index.

For descriptive accounts of bulletins 3 and 4, Investigations of the Economical Duty of Water for Alfalfa in Sacramento Valley, California, 1910-1915, and Preliminary Report on Conservation and Control of Flood Water in Coachella Valley, California, respectively, see fifth Biennial Report of the Calif. Dept. of Engineering from which they are reprinted.

Bulletin 5 is report on the Utilization of Mojave River for Irrigation in Victor Valley, California. It is also found in the sixth report of the Calif. Dept. of Engineering, which see for account of contents.

Bulletins 6,8, and 9, California Irrigation District Laws as Amended 1919, Flood Problems of Calaveras River, and Water Resources of Kern River and Adjacent Streams and Their Utilization, 1920, respectively, contain no statistics of agricultural interest.

Bulletin 7 is Use of Water From Kings River, California, 1918. The only table in this that has been indexed is one giving the respective diversions from Kings River, the area that each claims to serve, and the area irrigated in 1918 as nearly as could be ascertained.

California. Department of engineering. California cooperative work ... Report on Pit River Basin by the Reclamation service office at Portland, Oregon. [Sacramento] Calif. state printing office, April 1915. 140p.

"This report deals with investigations made in 1914 and 1915 by the United States and the State of California acting in cooperation through certain engineers of the Reclamation Service duly authorized for the purpose ... Studies have been made of possibilities of improving present conditions by fully irrigating such areas as are now inadequately irrigated and also watering additional irrigable lands now unsupplied."

Contains very few agricultural statistics. Two tables showing irrigated areas in the Pit River Basin have been indexed. Tables showing the estimated cost of constructing proposed canals are given but have not been indexed.

California. Department of engineering. Report, 1st-7th, 1907-08 - 1919-20. Sacramento, 1908-1921.

This Department was created March 11, 1907 and organized in May of the same year. The first report covers the period May 11, 1907-Nov. 30, 1908. Other reports are biennial.

Reports 1 and 2 contain no agricultural statistics. Items indexed in the third, 1910-12, report relate to alfalfa and barley irrigation investigations. Statistics indexed in the fourth, 1912/14 report include a summary of results of alfalfa duty of water investigations, which includes acreage and yield, cost of production and profit per acre; duty of water investigations at Davis with various grains; grain irrigation in Woodland area; summary of miscellaneous data on net and gross duty of water for numerous specified crops - tables show year, acreage, depths of water applied and location and source - specified crops irrigated, acres, by water diverted from canals; etc. Bulletin 1 of this department entitled Progress Report of Co-operative Irrigation Investigations in California, 1912-1914 is reprinted from this fourth report.

Items indexed in the fifth report include yield, value, cost and profit of alfalfa - the result of an irrigation investigation at Davis University Farm; the relation of climate to yields of hay; acreage of alfalfa in irrigated areas and total yields per acre; and irrigated areas in Coachella Valley. Appendix B is a reprint of Bulletin 2 of the Dept. of Engineering, Irrigation Districts in California, 1887-1915. Appendix C is a reprint of Bulletin 3, Investigations of the Economical Duty of Water for Alfalfa in Sacramento Valley, Calif., 1910-1915. Appendix D is a reprint of Bulletin 4, Preliminary Report on Conservation and Control of Flood Water in Coachella Valley. Appendix C to the sixth report, 1916-18, is a Report on the Utilization of Mojave River for Irrigation in Victor Valley, California. Data relating to area irrigated and duty of water for alfalfa and for orchards have been indexed.

Statistical data indexed in the 7th report include yield per acre of alfalfa for 1918-1920 at the College of Agriculture in irrigation studies, a table from the U.S. Census on irrigated areas, and a complete list of all irrigation districts existing in the state Nov. 1, 1920 with data concerning each.

For later reports see Calif. Department of Public Works, Division of Engineering and irrigation.

California. Division of engineering and irrigation. See California. Dept. of public works. Division of engineering and irrigation.

California. State board of equalization. Report, 1872-1926 [dates used are those given on the title pages] Sacramento.

All reports were issued biennially with the exception of the report for 1880, which, however, contains statistics for 1879 and 1880, and another report which covers the years 1899-1902.

Like other official reports of the state of California these reports, in addition to being issued as separate reports, are published in the appendices to the journals of the state legislature. The Library of the U. S. Dept. of Agriculture has separate reports for all except the following: 1872-73 in Appendix to the Senate and Assembly Journals, 20th sess., v.2; 1874-75 in Appendix to Senate and Assembly Journals, 21st sess., v.5; 1876-77 in Appendix to Senate and Assembly Journals, 22d sess., v.3; and 1878-79 in Appendix to Senate and Assembly Journals, 23d sess., v. 1.

The reports which contain statistical tables of agricultural interest show the following data: Number of acres of land assessed as per auditors statements; amount and value of personal property assessed (includes such items, as cattle, horses, etc., various kinds of grain, wines, hay, beehives, hops, etc.); value of real estate other than city and town lots and improvements thereon; acreage irrigated and mileage and value of irrigation ditches. Besides these tables which occur more or less regularly, there are other tables which show number of acres sown to crops, number of various kinds of fruit trees growing, yield per acre of grain and hay, assessed value of hay in storage, cotton consumed by mills, corn ground by grist mills, etc. Items listed do not occur in every report and some statistics are for both state and county while others are for counties only.

In the reports for 1893-94, 1895-96, and 1897-98 there is an Addendum giving the assessor's report of the mechanical and manufacturing industries of the city and county of San Francisco. Statistics dealing with the quantity and value of certain agricultural products produced or consumed in manufactories have been included in this index.

California. Fruit growers and farmers convention. See California fruit growers and farmers convention.

California. Governor. Resources of California; prepared in conformity with a law approved March 11, 1893, by H. H. Markham, Governor. Sacramento, State office, A. J. Johnson, Supt. state printing, 1893. 144p.

This book was prepared in compliance with a law authorizing the Governor to "prepare or have prepared a volume expository of the resources of the State of California, for the purpose of distribution at the World's Columbian Exposition." The first 97 pages are devoted to descriptions of the individual counties of the state, with various statistical data in the text. The rest of the book is composed of signed articles dealing with the climate, agriculture, viniculture, dairying, irrigation, etc. of California. These articles are illustrated in many cases by tabular data taken from official and unofficial sources. Among the data given are acreage of wheat, annually 1883-1892; quantity and value of U. S. imports of prunes, 1885-1891, and California production for 1886-1892; bearing and nonbearing fruit tree acreage for the state and counties, 1892; the pack of various fruits, 1892; fruit shipments by rail and by sea, 1892; shipments of citrus fruits, 1890 and 1891; price per ton paid for green fruit by Campbell Fruit Growers' Union, and price per lb. of dried fruit; prices realized for California fruit in New York City at auction, annually 1889-1902; U. S. imports of foreign fruits, 1891 and 1892; costs of deciduous fruit orchard, vineyard of table grapes, and orange or lemon orchard; production of beet sugar factories in Nebraska, Utah, and California, 1891, 1892; average net income and average cost of labor per acre for various vegetables; and the cost of a farm and of stocking it, and gross yield, Iowa and California.

There is also a table giving prices of various kinds of provisions in San Francisco and Sacramento City, June 15, 1893. Some of the prices are retail prices, others are jobbing prices, and others are prices received by producers.

This book has not been indexed.

California. Board of harbor commissioners. Report 1863/65 - 1924/26. Sacramento [etc.] 1865-1926.

Report year irregular. Title varies.

Biennial reports 1908/10, 1918/20, 1920/22, 1922/24, 1924/26 contain statistics of shipments of various commodities including numerous agricultural commodities. The tables that have been indexed show freight discharged and loaded over state wharves of San Francisco; imports and exports through port of San Francisco; intercoastal and internal shipments to and from San Francisco; value of imports, exports and other shipments (value given in 1922/24 report only); and acreage irrigated in counties of Sacramento and San Joaquin Valleys. The 1924/26 report is the only one that shows the irrigated acreage of these counties.

California. Board of harbor commissioners for the Port of Eureka, California. Annual report ... showing the business done at the Port of Eureka during the year ending December 31. See California. Board of habor commissioners. Official report of the ... exports from and the imports to the Port of Eureka for the year ending December 31.

California. Board of harbor commissioners for the Port of Eureka, California. Biennial reports 1908/09-1909/10 - 1910/11-1911/12. Sacramento, 1911, 1912.

These publications describe briefly the work of the Board, give a little early history and contain tables showing exports and value of same shipped over Humboldt Bar during the periods covered by these reports. The data include various agricultural commodities.

California. Board of harbor commissioners for the Port of Eureka. Official report of the ... exports from and the imports to the Port of Eureka for the years ending December 31, 1900-1902, 1904-1917. [Eureka, Calif., 1901?-1918?]

These publications are in the form of large folded sheets. The outside of each sheet also bears this title "Annual Report ... showing the business done at the Port of Eureka during the year ending December 31." They contain a report of the commerce of the Port of Eureka (Humboldt Bay) for the said calendar year. Agricultural commodities exported and imported have been indexed.

California. State board of horticulture. Bulletins 1-8, 50-54, 57-58, 60-61, 63-67, 70-71. Sacramento, 1887-1900.

Discontinued with Number 71. Continued by the Monthly Bulletin of the State Commission of Horticulture and later by the Monthly Bulletin of the Department of Agriculture.

"No record of any numbered bulletins between no. 7 and no. 50 has been found ... Bulletin no. 50 was issued in 1889 by the state board of horticulture created under sec. 9, statutes of 1889. In the opinion of the compiler no numbered bulletins were issued between nos. 7 and 50, the newly created board arbitrarily assigning no. 50 to the first of its series. No. 50 is regarded by the existing commission as the beginning of the file. The earlier numbers were intended for immediate and wide circulation and probably no record was kept of them. When the board in 1889 started its file, it is supposed a number was chosen for the beginning which would allow plenty of margin for such earlier numbers as might turn up without overlapping numbers." - Adelaide R. Hasse - Index of economic material in documents ... of California.

The compilers of this index were unable to examine Bulletins 51-53, 55-56, 59, 62, 68 and 69. However, their titles as given in the above noted index, indicate that they probably do not contain any statistics.

Bulletin 65, Fruit Markets and Transportation - A Report on These Matters by a Special Committee, is the only one examined that contains any statistics. In it are several tables dealing with fruit shipments and the cost of packing and carrying to Eastern markets.

California. State board of horticulture. California prune industry; history and importance of the prune industry, methods of cultivation, varieties, picking, curing, packing and production. By B. M. LeLong. Sacramento, 1892. 33p.

Contains tables showing number of trees to the acre by various systems; exports by years from France to the United States and foreign imports by years into the United States.

California. State board of horticulture. California walnut industry. By B. M. Lelong. 1896. 44p.

Also printed in the Biennial Report of the State Board of Horticulture, 1895/96, p.77-116, q.v.

U. S. Department of Agriculture Library does not have this in separate form.

California. State Board of horticulture. Citrus fruits. Pt. 1, Fifteen years with the lemon, by G. W. Garcelon. Pt. 2, New varieties of citrus fruits, by B. M. Lelong ... Sacramento, 1891. 38 p.

Part II contains statistics showing imports and exports of citrus fruits (imports into the United States have not been indexed), value of imports, number of trees in the state, and acreage. There are also tables showing temperatures of Italian, Floridian, and California citrus belts, and tariff on citrus fruits which have not been indexed.

California. State board of horticulture. Culture of the citrus in California. Research by B. M. Lelong, assisted by experienced horticulturists. Revised by State Board of horticulture. Sacramento, 1902. 267 [2]p.

There is also a 1900 edition.

One table showing orange and lemon shipments from 1892/93-1900/01 is indexed, also the number of bearing and nonbearing orange and lemon trees for 1900/01(?). The publication contains no other agricultural statistics.

California. State board of horticulture. Report, 1882-1902. Sacramento, 1882-1902.

For later reports See California. State commission of horticulture. Biennial report.

Statistics in these reports are more or less scattered. Among the data found in them are: number of fruit trees, acreage in grapevines, production of fruits and nuts, shipments, imports, exports, prices and values of fruits. Some of the later reports, such as those for 1892, 1893-94, 1897-98, and 1901-02, have sections entitled "Review of the Fruit Season." They contain numerous statistical tables similar to those mentioned above.

California. State commission of horticulture. Apple growing in California; a practical treatise designed to cover some of the important phases of apple culture within the state. By George P. Weldon, chief deputy state commissioner of horticulture. Sacramento, 1914. 124p.

One statistical table showing bearing and nonbearing acreage of apples for state and county is indexed. The publication contains no other agricultural statistics.

California. State commission of horticulture. Biennial report, 1st-8th, 1903-1918. Sacramento, 1905-1919.

For earlier reports See California. State board of horticulture. Report.

1st-5th have title: Biennial Report of the Commissioner of Horticulture.

Absorbed by the Department of Agriculture, July 22, 1919.

These reports contain scattered agricultural statistics. The first contains statistics similar to those given in the 1901-02 report of the State Board of Horticulture. The report for 1905-06, in addition to some horticultural statistics, contains the proceedings of the 32d Fruit Growers' Convention which includes an address by the Governor on Revenue and Taxation. He uses census data to illustrate the burden of taxation borne by the farmers and manufacturers. The 1907-08 report includes the proceedings of the 35th Fruit Growers' Convention. It also contains one table which shows drayage costs of fruit and vegetables shipped into San Francisco in 1896. The last report gives acreage totals and values of California fruit and field crops for 1917 and 1918; the values for 1918 being estimated. Acreages in farms, in improved land, and in fruit land are also given.

California. State commission of horticulture. Monthly bulletin, v.1, Dec. 1911-v.8, no.7, July, 1919. Sacramento, 1911-1919. See California. Dept. of Agriculture. Monthly Bulletin.

California. Commission of immigration and housing. Annual report, 1914-1926. Sacramento, 1915-1927.

No reports published for 1916,1917,1919,1923, and 1925.

These reports contain considerable discussion of immigration problems and of a constructive immigration policy. Education, living conditions, and labor camp inspection are described. The reports give an outline of the methods used "to help these immigrants become Americans worthy of the name."

The only statistics indexed are those which give numbers of laborers (agricultural) employed at labor camps and the wages received by them.

California. Commission of immigration and housing. Report on large land holdings in Southern California with recommendations. Sacramento, 1919. 43p.

Contains statistics of landholdings of eight counties in Southern California - total land area; area in farms; improved area, irrigated acreage; ultimately irrigable; acreage in large holdings; assessed valuation of land; of improvements; area tillable in large holdings; area; value and price of land owned by Southern Pacific Land Co. and acreage listed for sale by Southern Pacific Land Co.

The text begins in Part I with a Statement of conditions and ends with the suggestion of a graduated land-value tax, as a remedy for the large landholding problem.

California. Industrial welfare commission. Biennial report 1st-5th, 1913/14-1924/26. Sacramento, 1915-1927.

These reports consist mainly of studies of the cost of living and give results of investigations of industrial establishments. One table in the 4th biennial report has been indexed. It gives the total fruit and vegetable packs of the state from 1916 to 1922. No other agricultural statistics are given in these publications.

California. Industrial welfare commission. The regulation of the fruit and vegetable canning industry of California, May, 1917. Sacramento, 1917. 176p. (Its Bul. 1)

Only two tables in this publication have been indexed, one showing the number of cases of fruits and vegetables packed each year from 1900 to 1916 and the other the number of cases of fruits and vegetables, by individual variety, packed in 1914,1915, and 1916.

California. Bureau of labor statistics. Biennial report, 1st-21st, 1883-84 - 1925-26. Sacramento, 1884-1926.

"Sixth and eighth, 1893-94 and 1897-98, not published." - Library, U. S. Dept. of Labor.

These reports deal almost entirely with different phases of the labor industry including descriptions and conditions of the industries of the state, wages received and working hours, reports of factory inspection, investigation and testimony of capital and labor; employment bureaus and the work accomplished; causes and duration of strikes and lockouts and union scale of wages. A number of the reports contain a directory of labor organizations; a state census of manufactures; a review of labor laws and social and industrial statistics.

The agricultural statistics in these reports give in the main the number of persons employed, the wages received and working hours of farm laborers - in some cases classified by definite occupations. In a few cases the acreage and value of farms and acreage and value of principal crops grown on farms employing labor, are given, labor is often classified by race and sex. Data on Japanese labor are frequently given.

The earlier reports contain more agricultural statistics than do the later ones. The first report gives acreages, value and number of farms and value of farm property for three counties. It also contains comparative prices of principal foods.

The 2nd report contains reports from 35 counties of the taxable wealth in the county including acreage and price of land, number of ranches, rent and value of buildings, fences and implements.

Other agricultural statistics which may be found scattered through the reports are cost of operating one acre of hops, acreage of crops, shipments of agricultural and horticultural products, quantity and value of dairy products and livestock, and production of wool, hops, beet-sugar and timber.

California. Bureau of labor statistics. Statement of John Summerfield Enos, Commissioner of the Bureau of labor statistics, to the California state horticultural society in reply to a communication upon the advisability of displacing Chinese in the orchards, vineyards, and hopyards of California. Sacramento, April 30, 1886. 21p.

This publication contains the following statistical data: average monthly rate of wages, 1882,1879,1875,1869, 1863 of farm labor, with and without board, for various states and sections of the United States; rate of wages of agricultural labor per day in harvest, with and without board, for the same years, for individual states; undated table showing rates of agricultural labor in European countries (not indexed); a statement relating to the Chinese of California showing their labor relations with agricultural pursuits, as per returns from county clerks and assessors (not indexed); acreage of grapevines in the state and wine production in the state for a given number of years; production of various kinds of fruits in California for 1885; and production of various kinds of canned and prepared fruits, California, 1885.

California. Commission on land colonization and rural credits. Report. Sacramento, 1916. 120p.

Also an 87p. edition which contains the same material as do the first 87 pages of the 120p. edition.

This is the report of a commission to "investigate and consider the question of land colonization, and the various forms of land banks, co-operative credit unions, and other rural credit systems adopted or proposed in this country or elsewhere with special view to the needs of the rural communities of this state." - Introduction.

Tables showing the following data are indexed, average price per acre of farm lands in California compared with other sections of the United States and foreign countries; estimated cost of ready-made 40-acre dairy farms in three localities of California; cropped acreage, total and per acre value of crops in various reclamation projects and cost of developing lemon and orange orchards.

Tables I-IV are undated and are not indexed.

Table I - "A summary of data relating to financial condition of settlers" shows the number of settlers in various colonies; the average area of farm; average price paid for unimproved land; average time of payment; average capital of settler, average cost of improvements, number of debtors and average indebtedness and average rate of interest.

Table II "Reports of commercial organizations" shows the estimated outlay of settlers (furnished the commission by commercial organizations) including cost of unimproved land, cost of improving a 20-acre fruit farm; a 40-acre dairy farm or mixed farming, living expenses; amount for 1st payments; where money can be borrowed and time of repayment.

Table III - "Rate of interest and time given to pay for land under colonization systems of [Calif. and] different countries."

Table IV - "Summary of ages of settlers and of gross returns for the first year for nineteen California projects."

This report also contains a great deal of financial data relating to a "family farm" which was obtained from farmers. "A 'family farm' may be defined as that unit of farm business which can be handled by the average family to produce the sum accepted as necessary to cover the various expenditures to be met." Five types of farms are given- fruit, grain, poultry, dairy, and diversified farming. Tables show the average sizes, capital required for land, detailed costs of equipment, capital required until business is established and after established; possible returns, etc. These tables have been indexed.

California. State land settlement board. Farm allotments and farm laborers' allotments in the Delhi state land settlement. Sacramento, 1920. 8p.

Tells of the state land settlement at Delhi - the soil, water, improvements, prices of land and terms of payments and conditions governing settlement.

Table I, giving acreage, price, deposits on land and amount of semi-annual payments on allotments has been indexed.

There is also a map showing allotments.

California. State land settlement board. Farm allotments and farm laborers' allotment in the Durham state land settlement. [2 publications] Sacramento, 1918.

This is of the same nature as the publication dealing with the Delhi settlement.

California. State land settlement board. How California helps men own farms and rural homes ... June, 1920. Sacramento, 1920.

A 16 page publication giving descriptions of the Durham and Delhi settlements. A table giving financial data of two average farmers is given in answer to the question "How much money are your settlers making?" These data have been indexed.

California. State land settlement board. Information for intending settlers regarding the Ballico Unit of the Delhi Land Settlement, Delhi, Merced Co. Sacramento [1922]

Publication gives location and general facts of the settlement including conditions under which farms can be purchased and one table giving acreage, value, required deposit and payments on each allotment.

California. State land settlement board. Information regarding progress under the Land Settlement Act. Plans for soldier settlement in the future. Sacramento, 1919.

Treats of what has been done in state land settlement and plans for the future.

A statement of returns from grain crops planted by the board shows how settlers were helped by this preparatory work. This is indexed.

California. State land settlement board. Report [1st-2d] 1917/18-1918/20. Sacramento, 1918-1921.

For later reports See Calif. Dept. of Public Works. Division of land settlement. Report.

These are reports of the operations of the board which aims to promote agricultural development by state land settlements. They contain few statistics. Statistics in the first deal with farm allotments, area in acres, price of land per acre, total price, etc. The second is devoted mostly to a report of the development of the Durham and Delhi state land settlements. Data consist mostly of milk sales for one week, value of exchange labor, estimated cost of irrigation system, and additional costs added to cost of land.

California. State land settlement board.
See also California. Dept. of public works. Division of land settlement.

California. Legislature. Committee on federal relations. In the matter of the investigation of the increase in freight and express rates. 1909. 48p.

"Transcript of testimony given before committee on Federal relations." Contains few statistics. Only one table showing the freight rates before and after a given date on several agricultural commodities has been indexed.

California. Legislature. Senate committee on corporations. Report. Railroad fares and freights. 109p. (In Appendix to the Journals of the Senate and Assembly - 21st session, v.5. 1876)

This publication contains numerous schedules showing comparisons of freight rates and schedules of proposed rates, also a table showing classification of freight as used by various railroad companies. Only one table has been indexed. It shows the freight rates of several agricultural commodities between given points.

California. Department of public works. Division of engineering and irrigation. Bulletins 1-12,18. Sacramento, 1922-1927.

Bulletins 1,7,10, and 18 are California Irrigation District Laws. In each of these bulletins is a table showing acreage of irrigation districts. Numbers 10 and 18 give both active and inactive areas.

Bulletin 2 (Procedure for securing state approval of formation of irrigation districts) and Bulletin 12 (Summary report on the water resources of California) have not been indexed as they contain no statistics of interest.

Bulletin 3 is Water Resources of Tulare County and Their Utilization. The only tables indexed in this bulletin are those showing the irrigated acreage of alfalfa, corn, orchards, vines, miscellaneous and total crops, and the kind of irrigation used.

Bulletins 4,5,6 and 9 contain little of interest.

Bulletin 8 is Cost of Water to Irrigators in California. It gives "information on the type of irrigation system, locality, age, source of water supply, duty of water, acreage irrigated, kind of crops, capital invested and water charges, in addition to annual cost of water to the irrigator. Such data were obtained for this report by visiting the principal irrigation enterprises of the state. The data on private pumping plants were obtained by making field tests in each case." -

Introduction. Statistics giving acreage of crops irrigated, cost of irrigation, cost of pumping for irrigation, and quantity of water used are indexed.

Bulletin 11 is Ground Water Resources of the Southern San Joaquin Valley. Tables showing acres irrigated in various areas - often classified by types of irrigation - have been indexed, also one table showing total acreage in specified crops in area above the East Side Canal.

California. Department of public works. Division of engineering and irrigation. Reports, 1920/22-1924/26. Sacramento, 1923-1926[?]

These reports are a continuation of the first - seventh biennial reports, 1907/08-1919-20, of the Calif. Dept. of Engineering. They accompany the 1st - 3d biennial reports of the Calif. Dept. of Public Works. No separate report for 1924/26 being available for examination the report as given in the document set (Appendix to the Journals of the Senate and Assembly of Calif. v.5, 47th sess.) was indexed.

These reports deal with the problems of irrigation, drainage, reclamation of land, construction of river control works, and related subjects. Numerous statistical data are given. The following only have been indexed: tables showing area of active and inactive irrigation districts, summary of agricultural and irrigated areas, and results of rice and alfalfa irrigation investigations.

California. Department of public works. Division of land settlement. Farming in Merced County, California. 1923. [Sacramento, 1923] 16p.

Pamphlet gives information for intending settlers regarding Delhi State Land Settlement in Merced County.

The following data were indexed: average taxes per acre; price of land per acre; total price; deposit on land and semi-annual payment; value of improvements; deposit on improvements; half yearly installment on improvements.

California. Department of public works. Division of land settlement. Introduction to first biennial report, Sept. 1, 1922. Sacramento, 1922.

This is a brief account of the state land settlements at Durham and Delhi and the preliminary work done by the state before offering the land for sale. It contains one table showing the average cost and the average capital expended in the development of 70 typical irrigated areas.

California. Department of public works. Division of land settlement. Report. 1920/22. Sacramento, 1923.

This accompanies and is part V of the first Biennial Report of the California. Dept. of Public Works.

For earlier reports See California. State Land Settlement Board. Reports.

This report gives an account of the two state land settlements, one at Durham and the other at Delhi. It tells of the preliminary work done by the state and how these settlements have added to the state's wealth. Typical examples of expenses and incomes over a given period in one of these are given and have been indexed, also a table showing acreage of crops at Durham.

California. Department of public works. Division of land settlement.
See also California. State land settlement board.

California. Department of public works. Division of water rights. Bulletins 1-5, 11. Sacramento, 1923-1927.

Bulletins 1 and 2, Hydrographic Investigation of San Joaquin River, and Kings River Investigation, respectively, contain no agricultural statistics.

Bulletin 3 is Proceedings of the Sacramento [San Joaquin] River Problems Conference held under the auspices of the Sacramento Chamber of Commerce and the Division of Water Rights at Sacramento, Calif. on Jan. 25 and 26, 1924. Numerous statistical tables are included in this Bulletin. Data indexed include acreage irrigated; irrigation development as shown by applications received and permits issued for appropriation of water; growth of the rice industry - shown by acreage harvested, production and average price received; amounts of water diverted for rice irrigation based upon various factors; shipments, price, and value of numerous Delta farm products shipped by boat and rail for the year 1919.

Bulletin 4 is Proceedings of the Second Sacramento-San Joaquin River Problems Conference and Water Supervisor's Report. Statistics of interest are acreage of crops irrigated; acreage of crops benefited by water conservation work during an unusually dry season; and estimated value of given crops saved by water conservation.

Bulletin 5 is San Gabriel Investigation, Report for the period July 1, 1923 to September 30, 1926. It contains a great deal of data relating to water investigation but very little that has been included in this index. The status of land, i.e., the irrigated, irrigable and non-irrigable area of San Gabriel Valley and of San Gabriel Valley by basins has been indexed, also the acreage of the leading crops grown in this valley, and the duty of water required for citrus fruits and walnuts for a given number of years. A description of the tracts for which duty of water data were obtained is also given.

Bulletin 11 was issued jointly by the Division of engineering and irrigation and of water rights. For description of it See California. Dept. of public works. Division of engineering and irrigation. Bulletins.

California. Department of public works. Division of water rights. Reports, 1921/22-1924/26. Sacramento, 1923-1927.

"The Division of Water Rights is that branch of the state government having supervision of the administration of California's water resources. It was fromerly known as the State Water Commission." - Introduction to Report 1922/24. The reports accompany the reports of the Calif. Department of Public Works.

The only items indexed in these reports are tables showing the acreage of crops irrigated and costs of irrigation.

California. Railroad commission. Reports 1880-81-82 - 1925/26. Sacramento, 1882-1927.

No reports published 1897-1898; 1901; 1902; 1904; 1905; 1906;1907.

Report year irregular. A few of the reports are biennial. 1899 included in report for 1900.

Some reports issued by Board of Railroad commissioners.

For earlier railroad reports See California. Board of Commissioners of Transportation. Reports.

These reports contain all sorts of statistical data relating to the railroads operating throughout the state, such as operating expenses, earnings, profits and losses, accidents, reductions in freight rates, etc.

Some of the reports give proposed freight rates. These have not been indexed, neither have freight rates for which the date could not be determined. Actual freight rates, however, have been included.

Tables showing freight carried by railroads operating in the state appear in almost all of the reports. The agricultural commodities given in these tables have been indexed. The later reports do not give these shipments by commodities; they show the agricultural products and the animal products carried over the various railroads.

In the 1891/92 report there is a table showing acreage of wheat, corn, oats, barley and grapes, number of fruit trees growing, number of lemon and orange trees bearing; number of sheep and number of beef and stock cattle in the state and counties for 1870 and 1890. The average value per acre of land in 1882 given by counties is found in Report 1883. These, and occasional other statistics that appear, have been indexed.

California. Commission on revenue and taxation. Report 1906. Sacramento 1906.

A preliminary report of 71 pages was issued August, 1906.

This is a report of the System of revenue and taxation in force in the state of California and gives the taxes imposed on each class of property such as steam and street railroads, water companies, banks, telephone and telegraph companies, etc. Chapter III entitled "Inequalities in the existing system of taxation" gives a summary of farm taxation which includes a table of taxes on farms compared with taxes on manufactures. This table gives the total capital; value of land (also per cent of total capital); buildings; machinery; other assets; assessed value; gross product; net product; taxes of gross product and taxes of net product. This table has been indexed, also a table showing the average country or rural tax rate compared with the city average.

California. Stallion registration board. Annual report 1911/12-1918/19. Sacramento, 1912-1919.

Contains statistics of registration of stallions and jacks.

For later reports See California. Dept. of agriculture. Special publications 14,23,41,48,49, and 59.

California. Secretary of state. Governor's message; and report of the Secretary of state of the census of 1852, of the state of California. (In Appendix to Senate Journal, session of 1853, Document No. 14) 58 p.

This is an interesting census report of the population, production and capital of the state of California. No agricultural population is given. Pages 13 to 56 are entitled "Abstract of the Census of 1852, of the state of California." The data in this section are given for individual counties. Pages 57-58 are a recapitulation of the data for the state as a whole. Among the data given are numbers and value of different kinds of live stock, production of various crops, and the amount of capital invested in farming, farming utensils, fruits and orchards, etc.

California. Surveyor general. Report 1850, 1852-1924/26. Sacramento, 1851 [?]-1926.

Like other official reports of the state of California these reports, in addition to being issued separately, are published in the Appendices to the Journals of the State Legislature. Reports not found in separate form are:

1850 in Legislative Journal, 1851, p. 576-580,894-896 (contains a few approximate statistics in the text but no tabular data)
1852 in Appendix to Senate Journal, 1853, doc. 3.
1853 in Appendix to Senate Journal, 1854, doc. 1.
1853 in Appendix to Assembly Journal, 1854, doc. 4.
1856/7 in Appendix to Assembly Journal, 9th sess.
1859 in Appendix to Assembly and Senate Journals, 11th sess.
1860 in Appendix to Assembly and Senate Journals, 12th sess.
1861 in Appendix to Senate and Assembly Journals, 13th sess.
1862 in Appendix to Senate and Assembly Journals, 14th sess.
1864 (Nov.20,1863/Nov.1,1864) and 1865 (Nov.1,1864/Nov.1,1865) bound together. In Appendix to Senate and Assembly Journals, 16th sess., v.1.
1869/71 in Appendix to Senate and Assembly Journals, 19th sess., v.1.
1898/1900: not printed.

Beginning with 1865/67 these reports are biennial with the exception of the reports for 1869 and 1879/80. The report for 1869 is entitled Statistical Report ... for the Year 1869, and contains the same kind of statistical tables as do the other reports. The report for 1869/71 is entitled Statistical Report ... for the Years 1869, 1870 and 1871.

The law requiring the county assessors to send in to the surveyor general an annual report on agricultural products was passed by the state in 1850. This resulted in the first statistics appearing in 1853 covering the year 1852. The earliest reports give tables of statistics for individual counties but in the reports from about 1855 to 1882/84 the information is given in more compact from and shows agricultural and industrial information as reported by the several county assessors. The data are given for the state and counties and include such items as the following: acres of land inclosed and uninclosed; acreage and production of different crops, number of different kinds of fruit trees, number of different kinds of livestock and poultry, number of irrigation ditches and acres irrigated, assessed value of property, etc. A report of the manufacturing and mechanical industries of San Francisco City and County is also given.

After the 1882/84 report these reports deal mainly with the affairs of the Surveyor General's office, school land payments, swamp land certificates, fees, etc.

California. State tax commission. Report [1st] 1917. Sacramento, 1917.

This report covers a period of a year and 4 months.

It is the report of an investigation of the general subject of taxation and contains few statistics pertaining to agriculture. Values - actual, assessed or appraised - when given for land and improvements outside of corporated cities or tax rate outside incorporated cities have been indexed.

California. Board of commissioners of transportation. Reports. Sacramento, 1877,1879.

Two reports were issued. The first is a report to the Legislature of the state and is dated December 1877. The other is a biennial report for the years ending December 31, 1877 and 1878.

These publications contain a great deal of statistical data relating to railroads operating throughout the state, such as returns of broad and narrow gauge roads, earnings, profits and losses, freight and passenger rates, casualties, land grants (acres sold and average price of sale of lands granted by the U. S. Government), reductions in freight rates, etc. Undated tables have not been included in this index. In the first report only the following were indexed: amount of agricultural freight transported during the year, and the number of farm animals killed on railroads. In the second, tables showing reductions in freight rates on agricultural commodities, receipts of 6 leading articles of produce at San Francisco, and grain products transported to the general markets of the state by the railroads have been indexed.

For later railroad reports See California. Railroad Commission. Reports.

California. University. College of agriculture. California countryman See California countryman.

California. University. College of agriculture. Agricultural extension service. Agricultural extension service hand book, comp. by C. F. Elwood. [Berkeley, Calif., 1921] [195] p.

A hand book of information on agricultural subjects. Tables showing dates of frosts, planting calendar of fruits, field crops, small fruits, and vegetables, and average cost of bringing orchards into bearing are indexed.

California. University. College of agriculture. Agricultural extension service. Annual report of the Director of agricultural extension. See California. Agricultural experiment station. Report of work.

California. University. College of agriculture. Agricultural extension service. Circulars 1-14. Berkeley, 1926-1927.

Circulars 1,5,11 and 12 have been indexed.

Circulars 1 and 5 are Series on California crops and prices, Peaches and Lettuce, respectively. For others in this series see California. Agricultural Experiment Station. Bulletins. Circular 1 contains many charts and tables dealing with the acreage, production, price actual and relative, relative value or purchasing power and shipping and marketing conditions of peaches. One section gives data on cost of production and an appendix gives foreign peach statistics. There are numerous tables giving data for the United States peach industry. Circular 5 is similar in type and contains data on shipments of lettuce for the United States, relative importance of main lettuce shipping states, California shipments compared with other main shipping states, California shipments by districts and by counties, and monthly and weekly shipments. The markets to which lettuce is sent, prices received, trend of prices, and per capita consumption are also given.

Circular 11 is Cauliflower Production in California. Three tables showing shipments of cauliflower have been indexed.

Circular 12 is Wool Production in California. A chart and a map show California wool production and another chart shows monthly market quotations.

California. University. College of agriculture. Agronomy project no. 337. Notes on methods and costs, California crop production, by R. L. Adams. See Adams, Richard Laban. Farm management notes (for California).

California. Board of state viticultural commissioners. Annual report of ... commissioner for the San Joaquin district, 1891. Sacramento, 1891. 11p.

This publication reviews the progress of grape growing in the San Joaquin district. Statistical tables that have been indexed include acreage in vineyards, production of raisins in the state from 1873-1890, annually, consumption of California raisins, and production of California raisins compared with the production of leading foreign countries. An appendix contains statistics relating to the United States and foreign countries. These have not been indexed.

California. Board of state viticultural commissioners. [Bulletin] 1-15. Sacramento, 1914-1919.

Number 15 was the last one published. Superseded by reports of the Viticulture Service on the grape industry and published as Special Publications 6,11,28,38, and 47 of the California Department of Agriculture.

Among the data indexed in these bulletins are: production of raisins; acreage reported in vineyards; production of sweet wine; price of raisin grapes; expense per carload of marketing grapes; shipments of deciduous fruits 1914 and 1915; estimated cost of producing grape syrup, grape juice, and of grafting an acre of grape vines; average drying ratios of wine grapes; and returns from drying wine grapes, etc.

California. Board of state viticultural commissioners. Directory of the grape growers, wine makers and distillers of California, and of the principal grape growers and wine makers of the eastern states ... Sacramento, 1891. 254 p.

This directory gives the names and post office addresses of grape growers, by counties, and the acreage and production of grapes for each grower in 1889. In some counties the varieties of grapes grown are given. Statistics of acreage and production have been indexed.

California. Board of state viticultural commissioners. Report ... 1880-1881/82,1887,1889/90-93/94. San Francisco, Sacramento, 1881-94.

Report year irregular.

There are 1st and 2d editions (revised) of the report for 1880.

1880-1881/2 are 1st-2d annual reports.

"'The third annual report of the Commissioners is contained in the 2d annual report of the Chief executive viticultural officer and covers the years 1882,1883 and 1884.' (Ann. rept. vitic. comrs. 1887:11) As worded, this statement is misleading. There is no division of the viticultural officer's report referred to specifically occupied with the report of the viticultural commissioners. "What it was intended to say was probably that the report of the viticultural officer would be submitted also as the commissioners report." - Hasse, A. R. Index of economic material in documents of the states ... California 1849-1904 ...

1880-91/92 have title: Annual report, although 1890/91-91/92 are really biennial reports.

1892/93-93/94 are biennial reports.

For later reports consult California. Board of state viticultural commissioners. Report 1913/14-1916 (not indexed).

These reports contain statistics giving production of grapes, wine and raisins; acreage of vineyards and grapevines; number of vineyards and vine growers; shipments of wine and grapes; receipts, value, price and stocks on hand of wine; consumption of raisins; sales of grapes, wine and raisins; and average price of grapes. Some statistics are for the state but most of them are for counties or districts. In addition to the statistics which have been listed there are statistics scattered throughout the text of the reports, as well as reports, articles and information bearing on the viticultural industry.

1890/91-91/92 include Appendices A-E. Appendix A is issued separately. Appendix D contains a statement of the import duties of all the principal countries to which California wines, brandies and raisins are or may be exported. A similar statement is contained in Appendix F of report for 1892/93-93/94. 1892/93-93/94 include Appendices A-F. Appendices A-B are issued separately. These appendices contain no agricultural statistics but do contain information and articles of interest to viticulturists.

"Commission discontinued. By legislative act of 1895 property and duties of board were transferred to University of California." - Hasse, A. R. Index of economic material in documents of the states ... California ... 1849-1904 ...

California. Board of state viticultural commissioners. The vineyards in Alameda County; being the report of Charles Bundschu, commissioner for the San Francisco district. Sacramento, 1893. 23 p.

This report contains data relative to the number of vineyards, the acreage in vines, the 1892 crop of grapes, the stock of wine on hand, and cooperage for Alameda County and its eight districts. All data, except for the grape crop, are presumably for 1893. Reports for individual growers are not given in tabular form but have been included in the index.

California. Board of state viticultural commissioners. The vineyards in Napa County; being the report of E. C. Priber, commissioner for the Napa district ... Sacramento, 1893. 47 p.

Data showing the number of vineyards, the acreage in vines and 1892 crop of Napa County, its five districts and for individual growers have been indexed.

California. Board of state viticultural commissioners. The vineyards in Sonoma County; being the report of I. DeTurk ... Sacramento, 1893. 48p.

The number of vineyards, the acreage in grapes and crop in Sonoma County and its five districts have been indexed.

The report on vineyards (acreage and yield) for individual growers of the county is not given in tabular form but has also been included in this index.

California. Board of state viticultural commissioners. The vineyards of southern California; being the report of E. C. Bichowsky ... Sacramento, 1893. 47 p.

This report contains statistics of the grape acreage and crop of five southern counties, also a report on acreage and crop of vineyards of individual growers in these counties.

California. Board of state viticultural commissioners. Viticulture in California, Mar. 15, 1914. Sacramento, 1914. 7 p.

Contains viticultural statistics in the text and one short table on raisin production.

"This report is issued to the public by direction of the State Board of Viticultural Commissioners for the purpose of acquainting those interested, with the extent of the grape industry in California, and for the additional purpose of inviting all vineyardists to make use of the State Viticultural Commission when in quest of any information or advice relating to the welfare of their properties.." - p. 1.

California. State water commission. Report 1912-1919/20. Sacramento [1913?]-1921.

1917-20 have title: 2d-3d biennial report.

For later reports See California. Dept. of public works. Division of water rights. Report.

Report Mar. 1, 1915 - Dec. 1, 1916 contains few agricultural statistics. Tables showing acreage in rice in California and leading rice states, area of irrigated rice fields in Sacramento Valley and area of irrigation districts have been indexed.

Reports for 1912 and for Dec. 1, 1916-Sept. 1, 1918 contain no agricultural statistics.

The third report contains few agricultural statistics. Included in this index are tables showing rice acreage, area of irrigated rice fields; area possible of irrigation in California, and area of agricultural permits for water rights.

California. Division of water rights. See California. Dept. of public works. Division of water rights.

California census of 1852. See California. Secretary of state. Governor's message; and report of the Secretary of state of the census of 1852, of the state of California.

The California Countryman. V.1, May 1913-v.3, May 1916, v.6, Jan. 1920-v.14, Dec. 1927. Berkeley, 1913-1927.

"Published monthly during the college year by the agricultural students of the University of California, in the interests of rural life."

Suspended publication Nov. 1917-April 1918 (Letter April 29, 1918)

Wanting: May, 1918-Dec. 1919 if published. May, 1927 not published.

V. 1-7, no.5 have title: The University of California Journal of Agriculture. V. 7, no. 6 has title: California Journal of Agriculture.

These publications contain a few statistics such as cost of production, acreage, production, and value of various crops and number of grain, pasture and hay fires and causes of these fires.

California crop and livestock reports. See California. Cooperative crop reporting service [California crop and livestock reports] also Calif. Dept. agr. Special publications, and Monthly bulletins.

California fruit growers and farmers convention. Proceedings, 1st-59th, 1881-1926, held under the auspices of the state department of agriculture and organizations which preceded it. San Francisco and Sacramento, 1882-1927.

1st in Report of Board of State Horticultural Commissioners, 1882.

3d-9th in Reports of State Board of Horticulture, 1883,1884,1885 and 1886,1887 and 1888.

10th-12th (synopses only) in Report of State Board of Horticulture, 1889.

13th-17th in Reports of State Board of Horticulture, 1890,1891,1893-1894.

20th-23d,43d,44th,46th not published.

25th,27th in Reports of State Board of Horticulture, 1899-1900,1901-02.

30th,32d,35th in Reports of State Commission of Horticulture, 1903-04, 1905-06,1907-08.

41st,42d,49th-51st in Monthly Bulletin of State Commission of Horticulture, v.1, no.9, Aug. 1912; v.2, nos. 3 & 4, Mar.-Apr.1913; v.6, no. 5, May, 1917; v.7, nos. 1 & 2, Jan.-Feb. 1918; v.8, no.7, July, 1919.

52d-59th in Monthly Bulletin of Department of Agriculture, v.8, nos. 11 & 12, Nov.-Dec. 1919; v.9, no. 12, Dec. 1920; v. 10, no. 10, Oct. 1921; v.12, no.5, May, 1923; v. 13, no.1-6, June, 1924; v.14, no.1-6, Jan.-June, 1925; v. 15, no. 1-6, Jan.-June, 1926; v.16, no.3, Mar. 1927.

45th issued as Supplement to Monthly Bulletin of the State Commission of Horticulture, v.4, nos.5-6, 1915. The others are issued as separate publications.

Formerly California State Fruit Growers Convention.

These volumes contain occasional statistics. Only volumes issued separately have been indexed under the name of the convention. Others have been indexed as part of the set in which they are found.

The 10th report contains a few statistics of fruit shipments and production of dried fruits in California in 1887. The 18th gives acreage, value, and yield of wheat and hay for 1893; shipments of fruits and vegetables by rail and by sea, acreage of fruits in two districts of San Diego County for 1894, and number of fruit trees in Riverside County for 1894. The 19th contains tables showing the amount realized for, and average price received for fruits sold at New York and shipments of fruits. The 24th and 26th contain tables showing destination and number of cars of fruit shipped for a series of years. The other reports contain various scattered statistics, i.e. shipments, transportation charges, expense account of a 20-acre lemon grove, and the cost of distribution of oranges.

In addition to the regular reports of Proceedings there are certain other reports made by committees of the California Fruit Growers Convention which have been examined but not indexed. Those of the reports examined are mainly reports of the Fruit Growers Committee on Freight Rates and the Fruit Growers Committee on Transportation and are the property of Mr. S. W. Shear, College of Agriculture, University of California, Berkeley. Members of the committees in practically every case were R. D. Stephens, Chairman, M. E. Angier, and C. M. Hartley. A list of the titles of the reports with descriptions of their contents are as follows:

California deciduous ... fruit [table grapes, tree fruit]. Growers ask same rate given orange growers, south of Tehachapi. Statistics showing result of sales in Eastern markets, 1908... Presented by Fruit growers' committee. Sacramento, n.d. [10]p.

"The object of this publication is to give transportation companies handling California shipments facts showing present conditions and their effect upon deciduous green fruit shipments from California."

Tabular data consist of number of cars sold, gross and average sales of deciduous fruit in 11 cities, 1908.

Fruit growing in California; statistics showing results of shipping and selling 3,623 carloads in Eastern markets in 1903. 30 [2]p.

This publication bears neither date nor place of publication. It does, however, contain a copy [p.1] of the Report of the Fruit Growers' Transportation Committee submitted to the Fruit Growers' Convention. According to a statement on p.30 "the object of the fruit growers who issue this publication is to give to all who desire an insight into the condition in which we find the deciduous fruit industry of California, so far as growing and shipping deciduous fruit to Eastern markets is concerned." As indicated in the title the publication contains statistics showing results of shipping and selling 3,623 carloads of fresh fruit in the Eastern cities. Data are tabulated and include daily figures for July 6, 1903 - Nov. 13, 1903, with a summary for the season of the number of cars shipped; amount of gross sale; cost to grower, not including interest on capital invested (freight, refrigeration, commission, cost of production, etc., and total cost), profit or loss, interest on capital invested at 8 per cent, and profit or loss after interest is deducted. Other tables give a recapitulation of the data for the season for each city; number of cars shipped, number of cars sold, and number of cars not accounted for; and a summary showing that a loss instead of a profit, due to high costs of production and marketing, is suffered on each car.

Fruit growing in California; statistics showing result of shipping and selling 3,664 carloads in Eastern markets in 1904; compiled and edited by R. D. Stephens. Sacramento, Cal., A. J. Johnston co., stationers, printers, n.d. 32p.

This publication is somewhat similar to the previous one mentioned, except that it contains more text and fewer statistics. On p. 6 figures are given showing the cost of marketing the 3,664 cars in 1904, the gross sale, and the net loss to the growers. Pages 7-10 contain statistics of sales of fresh fruit in eleven Eastern cities. Data consist of number of cars sold, gross and average sales, cost to grower not including interest, cost including interest, and profit or loss with and without interest, and are given weekly during the season. There is also a table giving a recapitulation for each city. On p. 14 there are tables showing possible and probable profits from Bartlett pears, plums and prunes bought from California growers, f.o.b. by shippers who belong to the "California Fruit Distributors." On p.25 there is a table comparing weekly sales of California fruit in Eastern markets in 1904 with sales in 1903. A table on p. 27 summarizes the data by the week instead of by cities. On p. 31 there is a table showing the proportion of business done by the Armour and Santa Fe car lines for five weeks, Aug. 5 - Sept. 2.

Fruit growing in California; statistics showing result of shipping and selling 2,963 carloads in Eastern markets in 1905... compiled and edited by R. D. Stephens. Sacramento, A. J. Johnston co., stationers, printers, n.d. 32p.

"The object of this publication is to give its readers an insight into the present methods of transportation and marketing of California fresh deciduous fruit in Eastern markets."

Statistics given are as follows: number of cars reported sold, gross and average sales, cost to growers including and excluding interest, profit or loss with and without interest, weekly, 1905 season for eleven Eastern cities; recapitulation of data by cities for the season; recapitulation by the week, instead of by cities; comparison of total weekly 1905 sales with sales of 1904; table showing possible results from f.o.b. sales of plums and prunes, Bartlett pears; cars shipped, cars reported sold, and cars not accounted for, weekly July 9, 1905-Oct. 8, 1905, both dates inclusive; number of carloads of fresh cherries, apricots, peaches plums and prunes, pears, grapes, apples, quinces and persimmons and figs, and total deciduous fruit shipped from California, 1904, 1905.

Memorial from the fruit growers of California to the transportation companies asking for a quicker time to points in the East, and for amendment of the minimum carload. [Sacramento,1901] 27p.

Contains no statistics.

The names of the Fruit Growers and Shippers Committee of which R. D. Stephens was chairman are given on p.11.

Report of Fruit growers committee on freight rates. Ask that deciduous shipments be put up on an equality with orange shipments from South of Tehachapi. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state in convention assembled at Watsonville, California, December 3, 1909. Sacramento, n.d. 28p.

Consists of "facts and figures in support of claims" that deciduous fruit shipments should be on an equality with orange shipments from South of Tehachapi. Several examples of costs to growers (railroad charges, commission, loading, etc.); sales; and net loss are given.

Report of Fruit growers committee on freight rates. Ask that the rate on deciduous shipments to Chicago and common points be fixed at one dollar per 100 lbs. and that the minimum carload be reduced to 20,000 lbs. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state, in convention assembled at Santa Rosa, California, December 19-22, 1911. Sacramento, n.d. 24p.

Statistical data are as follows: railroad charges versus state and county taxes; acreage of table grapes (classified as to varieties), and wine grapes in San Joaquin County as given by the county horticultural commissioner; tree fruit sales (number of cars, gross and average value of cars) in various Eastern markets, August 17 to 25th, 1911, and number and per cent sold at a profit and at a loss; similar data for grape sales, Sept. 5-29, 1911; number of cars of deciduous fruit and of grapes (also crates of grapes) sold in New York City, Aug. 19-Nov. 25, 1911; shipments of cherries, apricots, peaches, plums, pears, grapes, sundry fruits, and all fruits (cars) 1910, 1911.

Report of Fruit growers committee on freight rates, together with the action of the State fruit growers annual convention, December 7-10, 1909, taken thereon and subsequent action taken by the Committee. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state, in convention assembled at Stockton, California, December 6-9, 1910. Sacramento, n.d. 15p.

Statistics given on p. 12-14 show, principally, that after transportation, labor, commission, and other costs were deducted from the gross sales of California fruit and grapes marketed in the East during the 1910 season, California fruit growers made a smaller profit than was generally believed to be the case and grape growers suffered a loss.

Report of Fruit growers committee on transportation, 1912. Ask that the minimum carload be reduced from 26,000 to 24,000 pounds and a reduction in charges for refrigeration. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state, in convention assembled at Fresno, California, December 11-13, 1912. Sacramento, n.d. 22p.

In addition to statements as to the minimum weights on carload lots for deciduous shipments from Texas, Arkansas, and Georgia, the following data are given; table grape sales in Eastern markets (cars, total, and average value, number and per cent sold at a profit or loss) Oct. 14-Oct. 21, 1912; estimated cost per crate on grapes (itemized costs); list of cars with abbreviated explanation of the result of their sale; deciduous fruit and grape shipments to Eastern markets, 1903, 1904, 1905, 1910, 1911, and 1912.

Report of Fruit growers committee on transportation, 1913. Asking reductions in minimum carload, refrigeration and freight rates. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state, in convention assembled at San José, California, December 2-4, 1913. Sacramento, n.d. 15p.

Among the "facts and figures" given are a list of 100 cars (sales for 1913) showing the loss from decay caused by the overloading of the cars; a list of 160 cars showing gross sales in auction markets covering shipments made in August, September and October 1913, for various Eastern cities, with a recapitulation by cities as to number of cars, total and average sales.

Report of Fruit growers committee on transportation, 1915. Facts and figures in support of claims. Respectfully submitted to the fruit growers of the state, in convention assembled at Visalia, California, November 16-20, 1915. Sacramento, H. S. Crocker co., n.d. 15p.

Among the tabular data given are; approximate acreage planted to citrus fruits, grapes, and deciduous fruits in California; itemized costs to growers; and reported sales of California deciduous tree fruit in 14 different cities, 1915 (tables show total shipments, shipments showing a loss, and shipments showing a small profit).

Report of the Committee on transportation. Transportation, refrigeration, time-schedule. Action taken by the Fruit-growers of California at their convention, held in San Francisco, December 3-6, 1901. Issued by the State board of horticulture. 22p.

Contains no statistics.

Resolutions adopted by California fruit growers convention, 38th annual meeting held at Stockton, 1910, and subsequent correspondence. Sacramento, n.d. [8]p.

Three illustrations given on p. [4] show how railroad charges affect the deciduous fruit growers of the state in comparison with the state and county tax.

Tabulated statement showing shipments of California green deciduous fruit made to Eastern markets, and the result of its sale therein. n.p., n.d. [8]p.

"This statement gives in detail the reported sales for eight days in July, 1902, together with profit and loss on each carload. Also the reported shipment of 3,089 cars from July 5 to August 30, 1902, inclusive." Data include car numbers, places of origin and destination, dates of shipment and of sale, gross sales, items of expense to grower (freight, refrigeration, cost of production, commission, and total cost), profit or loss to growers, number of cars shipped, and a comparison of the number of cars and the number reported sold.

California Journal of agriculture. See California countryman.

California state agricultural society. Monthly journal, v.1 (nos. 2-4, 6-9), v.3, (nos. 1-7). Sacramento, 1859-1861.

This little monthly journal, or Journal as v.3 is entitled, was published by the Board of Managers of the California State Agricultural Society for "gratuitous circulation" as a "medium of free communication between all friends of agriculture."

The only table indexed in the numbers examined is a table showing number of grapevines in cultivation, 1856,1857, and 1858. This table is in the December 1859 issue.

California state agricultural society. Reports. See California. State board of agriculture. Statistical report.

California state agricultural society. Transactions. See California. State board of agriculture. Statistical report.

California state fruit growers convention. See California fruit growers and farmers convention.

Enos, John Summerfield. Statement of John Summerfield Enos ... in reply to a communication upon the advisability of displacing Chinese in the orchards, vineyards, and hopyards of California. See California Bureau of labor statistics. Statement of John Summerfield Enos ...

Farm management notes for California. See Adams, Richard Laban. Farm management notes (for California) 1921.

Governor's message; and report of the Secretary of state of the census of 1852, of the state of California. See California. Secretary of state. Governor's message ...

Los Angeles, California. Board of harbor commissioners. Annual report 1914/15 (which contains an abridged report of the board of harbor commissioners for the year 1913/14); 1915/16; 1916/18;1918/20; 1923/24; 1924/25;1925/26. Published by the Board of harbor commissioners of the city of Los Angeles, California, 1915-1926.

Titles vary. The Port of Los Angeles. Annual report of the Harbor Dept. of city of Los Angeles; Annual report of the board of harbor commissioners.

These publications contain reports of the amount and estimated value of commerce - domestic and foreign, inbound and outbound - through the Port of Los Angeles, giving in some instances the countries of destination or origin. Statistics of quantity and value of agricultural commodities imported or exported have been indexed.

The 1913/14 report gives quantity of exports and imports only, and the 1923/24 report gives value only of imports and exports.

The 1915/16 report has a large section devoted to data relative to the possibilities of foreign trade through the Port of Los Angeles. Information was compiled from official published reports and from special reports obtained from a large number of American consuls throughout the world. These data have not been indexed.

Reports 1924/25 and 1925/26 contain no statistics that have been included in this index.

These reports are not official publications of the state of California but they have been included in this index since other harbor reports similar to these are listed as official publications of the state, and have, therefore, been indexed.

Report of Assembly committee on the culture and improvement of the grape vine in the state of California. 8p. (In Appendix to the Journals of the Senate and Assembly, 17th sess., 1867/68, v.3)

This small publication contains the following statistical data: number of grape vines in the state and its counties for 1858, 1865, and 1866; and the production of wine in California, Ohio, Kentucky, and Indiana for 1860. California wine production is also given for 1866. Table showing number of vines is compiled from returns made by the county assessors.

Report and memorial of the Committee on the culture of the grape in response to a resolution of the Assembly. 8p. (Unnumbered document in Appendix to the California Senate and Assembly Journals, 1863, 14th session)

Contains one table which shows the number of grape vines set out in each county. The figures are from "reports of the county assessors, as compiled in the Surveyor-General's report of eighteen hundred and sixty-two."

Report of assembly committee on the culture of the grapevine. Apr. 1, 1866. 11p. (Unnumbered document in Appendix to the California Senate and Assembly Journals, 1866, 16th sess., v.3)

Contains tables showing wine production in California, Ohio, Kentucky, Indiana and the United States, and number of vines in California by counties. Data are from an article in the Mercantile Gazette, "The Viniculture of California - Its Progress and Prospects."

Report of the Committee on the culture and improvement of the grapevine. April 9, 1862 9p. (Unnumbered document in Appendix to Journals of Senate and Assembly (Calif.) 1862. 13th session)

Contains one table showing the number of grapevines in the respective counties for years 1856, 1857 and 1858. Figures from State Register.

Robertson, George. Statistical summary of the California raisin industry 1873-1910 ... Supplement to a paper read at the Thirty-eighth California State fruit growers' convention ... 1910. [n.p. 1911] [4] p.

This contains tables showing the following statistics: production of California raisins, 1873-1910, imports of foreign raisins, California raisins exported, production of seeded raisins, production by counties for 1909, raisin crop of the world, etc. Statistics of exports and imports have not been indexed.

State department of agriculture news. See California. Dept. of agriculture. State department of agriculture news.

University of California journal of agriculture. See California countryman.

# CALIFORNIA

## An Index to the State Sources of Agricultural Statistics

- - - - - -

## PART IV. - LAND, FARM PROPERTY, IRRIGATION, AND MISCELLANEOUS ITEMS

An Index to the Official Sources

Compiled by Louise O. Bercaw,*
Under the Direction of Mary G. Lacy, Librarian,
Bureau of Agricultural Economics

- - - - - - - - - - - - - - - -

## LAND

### Acreage

Acreage classified by kinds of land: state. In Calif. State bd. agr. Repts. 1911, p.10; 1912, p.2.

Square miles and acres of land surface. In Calif. State bd. agr. Rept. 1912, p.2; Statistical repts. 1913, p.1; 1914, p.2; 1915, p.2; 1916, p.[1]; 1917, p.2; 1918, p.2; 1919, p.2; 1920, p.7.

1849(?): state and county. In Calif. State controller. Rept. 1849/50, p.534.

1850: state and county. In Calif. State controller. Rept. 1850/51, p.497.

1850: counties (other than city and town lots) In Calif. State controller. Annual rept. 1849/50.

1851: state and county. In Calif. State controller. Rept. 1851/52, p.24.

1852: state and county. In Calif. State controller. Rept. 1851/52, p.26.

1852: state and county (acreage other than city and town lots) In Calif. State controller. Rept. 1852/53, p.18.

1852: Yuba county (classified by kinds - plains and bottom, mountain and upland, etc.) In Calif. Surveyor gen. Rept. 1852, p.43. (County assessor's or surveyor's rept.)

1853: state and county. In Calif. Surveyor gen. Rept. 1852/53, appendix C, p.10.

1853: state and county (assessed) In Calif. State controller. Rept. 1852/53, p.24.

1854: state and county (assessed) In Calif. State controller. Rept. 1853/54, p.16-17.

1855: state and county (assessed) In Calif. State controller. Rept. 1854/55, p.20-21.

---

*The compiler was assisted in the preparation of this index by Misses Lillian Crans and M. I. Herb of the Library Staff.

Acreage - Continued

1855: Napa county (total acres assessed - nearly all adapted to grazing or tillage) In Calif. Surveyor gen. Rept. 1855, p.277.

1855: Solano and Colusi counties (acreage of valley land; of mountain land) In Calif. Surveyor gen. Rept. 1855, p.253,269.

1855: Solano and Yuba counties (estimated) In Calif. Surveyor gen. Rept. 1855, p.253,320 (County surveyors).

1856: state and county (assessed) In Calif. State controller. Rept. 1855/56, p.28-29.

1857: state and county (assessed) In Calif. State controller. Rept. 1856/57, p. 28-29.

1858: state and county (assessed) In Calif. State controller. Rept. 1857/58, p.26-27.

1859(?): state (estimated total acres of land) In Calif. state agr. soc. Trans. 1859, p.362 (Sacramento Union and San Francisco Bulletin)

1859: state and county. In Calif. State controller. Annual rept. 1858/59, p.24-25.

1860: state and county (assessed) In Calif. Controller of state. Annual rept. 1859/60, p.22-23.

1861: state and county. In Calif. State controller. Annual rept. 1860/61, p.18-19.

1870(?): Calif., other states, territories, U.S. (acres not in farms, no. acres in total area) In Calif. state agr. soc. Trans. 1873, p.284-285 (From Rept. of Comm. of agr., 1872)

1873,1872: state and county (land assessed exclusive of city and town lots; reported by auditors) In Calif. State bd. equalization. Rept. 1872-1873, p.26-27,76-79.

1873,1872: state and county (assessed) In Calif. Controller of state. Bien. rept. 1871/73, p.164-167.

1874/75: state and county (assessed) In Calif. Controller of state. Bien. rept. 1873/75, p.124-125.

1875-1872 (annual): state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1874-75, p.8-11.

1875,1874: state and county (reported by auditors) In Calif. State bd. equalization. Rept. 1874-75, p.76-79.

1876/77,1875/76: state and county (assessed) In Calif. Controller of state. Bien. rept. 1875/77, p.102-105.

1877,1876: state and county. In Calif. State bd. equalization. Bien. rept. 1876-77, p.58-59,60-61. (Auditor's rept.)

1877,1876: state and county (assessed, exclusive of city and town lots) In Calif. state bd. equalization. Bien. rept. 1876-77, p.13 (Assessors' repts.)

1878/79,1877/78: state and county (assessed) In Calif. Controller of state. Bien. rept. 1877/79, p.82-85.

1879-1872 (annual): state (assessed) In Calif. State bd. equalization. Bien. rept. 1878-79, p.6 (Auditors' repts.)

## LAND - Continued

Acreage - Continued

1879,1878: state and county (assessed, exclusive of city and town lots) In Calif. State bd. equalization. Bien. rept. 1878-79, p.13.
1879,1878: state and county. In Calif. State bd. equalization. Bien. rept. 1878-79, p.58-59,60-61 (Auditor's rept.)
1879/80: state and county (assessed) In Calif. Controller. Rept. 1879/80, p.54-55.
1880: counties (land held and assessed - acreage and tracts, classified by size of holdings) In Calif. State bd. equalization. Rept. 1880, p.68-73 (Alameda County figure is for Brooklyn Township only; Placer County figures are given by districts)
1880,1879: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1880, p.59.
1881: counties. In Calif. State controller. California. Assessed value of property... for 1881, p.8-60.
1882: counties. In Calif. State controller. Bien. rept. 1881-1882, p.128-180.
1882: counties. In Calif. Bd. R. R. commissioners. 4th Annual rept. 1883, p. 56; 5th Annual rept. 1884, p.47.
1882,1881: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1881 and 1882, p.52-53.
1883(?): Stanislaus, Sonoma, Santa Cruz counties (acreage in county exclusive of town lots) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 1.
1884,1883: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1883 and 1884, p.104.
1885(?): counties (acreage in county exclusive of town lots) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746, question 1 (County assessors)
1886: counties. In Calif. State controller. Bien. rept. 1884-1886, p.134-186.
1886,1885: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1885 and 1886, p.44-45.
1888: counties. In Calif. State controller. Bien. rept. 1887-1888, p.146-198.
1888,1887: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1887 and 1888, p.40-41.
1890: counties. In Calif. State controller. Bien. rept. 1889-1890, p.138-190.
1890-1880 (annual): state (acres assessed) In Calif. State bd. equalization. Rept. 1889-1890, p.8.
1890,1889: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1889-1890, p. 78-79.
1891: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1891 and 1892, p.9.
1892: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1891 and 1892, p.23.

Acreage - Continued

1892: counties. In Calif. State controller. Bien. rept. 1891-1892, p.150-186.

1892(?): 6 valleys (and total) in Santa Barbara county (acreage available for practical uses) In Calif. State bd. hort. Annual rept. 1892, p.234.

1893: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1893 and 1894, p.13.

1894: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1893 and 1894, p.25.

1894: counties. In Calif. State controller. Bien. rept. 1893-1894, p.152-188.

1895: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1895 and 1896, p.7.

1896: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1895 and 1896, p.47.

1896: counties. In Calif. State controller. Bien. rept. 1895-1896, p.160-198.

1897: state and county (acres assessed) In Calif. State bd. equalization. Rept. 1897 and 1898, p.7.

1898: counties. In Calif. State controller. Bien. rept. 1897-1898, p.144-181.

1898: state and county (assessed) In Calif. State bd. equalization. Rept. 1897 and 1898, p.49.

1899: state and county (assessed) In Calif. State bd. equalization. Rept. 1899-1902, p.6-7.

1900: state and county (assessed) In Calif. State bd. equalization. Rept. 1899-1902, p.22-23.

1900: counties. In Calif. State controller. Bien. rept. 1899-1900, p.152-184.

1901: state and county (assessed) In Calif. State bd. equalization. Rept. 1899-1902, p.34-35.

1902: state and county (assessed) In Calif. State bd. equalization. Rept. 1899-1902, p.46-47.

1902: counties. In Calif. State controller. Bien. rept. 1901-1902, p.144-177.

1903: state and county (assessed) In Calif. State bd. equalization. Rept. 1903-1904, p.6-7.

1904: state and county (assessed) In Calif. State bd. equalization. Rept. 1903-1904, p.20-21.

1904: counties. In Calif. State controller. Bien. rept. 1903-1904, p.156-188.

1905: state and county (assessed) In Calif. State bd. equalization. Rept. 1905-1906, p.14-15.

1905: counties. In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

1905/06: counties. In Calif. State controller. Bien. rept. 1905-1906, p. 158-188.

LAND - Continued

Acreage - Continued

1906(tables headed 1905-06): counties. In Calif. state agr. soc. Rept. 1906 (See Contents under names of counties)
1906: state and county (assessed) In Calif. State bd. equalization. Rept. 1905-1906, p.34-35.
1907: state and county (assessed) In Calif. State bd. equalization. Rept. 1907-1908, p. 24-25.
1907(tables headed 1906-07): counties. In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)
1907/08: counties. In Calif. State controller. Bien. rept. 1907-1908, p.198-231.
1908: state and county (assessed) In Calif. State bd. equalization. Rept. 1907-1908, p.54-55.
1908(tables headed 1907-08): counties. In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)
1909: state and county (assessed) In Calif. State bd. equalization. Rept. 1909-1910, p.18-19.
1909(tables headed 1908-09): counties. In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)
1910: state. In Farm management notes for Calif., p.13 (U.S.Census)
1910: state and county (assessed) In Calif. State bd. equalization. Rept. 1909-1910, p.24-25.
1910: counties (approximate land area) In Calif. State bd. agr. Repts. 1911, 1914-1918 (U.S.Census)
1910(tables headed 1909-10): counties. In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)
1910,1900: state (approximate land area) In Calif. State bd. agr. Repts. 1911-1918.
1911: state and county (assessed) In Calif. State bd. equalization. Rept. 1911-1912, p.30-31.
1911(?): state (square miles water, land, total) In Calif. State bd. agr. Rept. 1911, p.10.
1912: state and county (assessed) In Calif. State bd. equalization. Rept. 1911-1912, p.34-35.
1913: state and county (assessed) In Calif. State bd. equalization. Rept. 1913-1914, p.66-67.
1914: state and county (assessed) In Calif. State bd. equalization. Rept. 1913-1914, p.70-71.
1915: state and county (assessed) In Calif. State bd. equalization. Rept. 1915-1916, p. 36-37.
1915/16,1914/15: state and county (assessed acreage) In Calif. State controller. Bien. rept. 1915-1916, Statements no. 16 and 17. following p. 250.
1916: state and county (assessed) In Calif. State bd. equalization. Rept. 1915-1916, p. 40-41.
1916 (Oct.1): counties, total (agricultural, grazing, timber, etc. holdings of 2000 acres or more; number of owners) In Calif. State tax comm. Rept. 1915/16, p.278.

## LAND - Continued

Acreage - Continued

1917: state and county (assessed) In Calif. State bd. equalization. Rept. 1917-1918, p.17.

1917(?): 8 counties, total (acreage of holdings in excess of 2000 acres; in excess of 10,000 acres; acreage in largest holdings) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.11 (Holdings of 2000 acres or more also given on p.13)

1917(?): counties. (acreage of the 32 largest holdings (exclusive of railroad lands)) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p. 12.

1917(?): 8 counties, total (per cent acreage of 2000 acre holdings is of total land in farms) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.13.

1917(?): 4 counties, total (acreage listed for sale by Southern Pacific Land Co.) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.21.

1917(?): 5 counties, total (holdings of Southern Pacific Land Co.-patented; unpatented acreage) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.8,21.

1917(?): Santa Barbara and Ventura counties; Southern Pacific land; other holdings given for 6 counties; totals (total acreage in large holdings; tillable acreage in large holdings; per cent tillable) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.19.

1917/18,1916/17: state and county (assessed acreage) In Calif. State controller. Bien. rept. 1917-1918, Statements 16 and 17, following p.272.

1918: state and county (assessed) In Calif. State bd. equalization. Rept. 1917-1918, p.21.

1919: state and county (assessed) In Calif. State bd. equalization. Rept. 1919-1920, p.12.

1919/20,1918/19: state and county (assessed acreage) In Calif. State controller. Bien. rept. 1919-1920, Statements 16 and 17 following p.228.

1920: state and county (approximate) In Calif. State bd. agr. Statistical rept. 1920, p.32-42.

1920: state and county (assessed) In Calif. State bd. equalization. Rept. 1919-1920, p.16.

1920: counties (approximate land area) In Calif. State bd. agr. Statistical repts. 1920-1921 (U.S.Census)

1920: 7 counties. In Calif. Agr. exp. sta. Bul. 350, p.175 (1920 Census)

1921: state and county (assessed) In Calif. State bd. equalization. Rept. 1921-1922, p.15.

Acreage - Continued

1921: state and county (approximate land acreage; acreage assessed) In Calif. State bd. agr. Statistical rept. 1921, p.XIII.

1921/22,1920/21: state and county (assessed acreage) In Calif. State controller. Bien. rept. 1921-1922, Statements 16 and 17, following p.212.

1922: state and county (assessed) In Calif. State bd. equalization. Rept. 1921-1922, p.19.

1923: state and county (assessed) In Calif. State bd. equalization. Rept. 1923-1924, p.13.

1923/24, 1922/23: state and county (assessed) In Calif. State controller. Bien. rept. 1923 and 1924, Statements 16 and 17 following p.228.

1924: state and county (assessed) In Calif. State bd. equalization. Rept. 1923-1924, p.17.

1925: state and county (assessed) In Calif. State bd. equalization. Rept. 1925-1926, p.14.

1925/26,1924/25: state and county (assessed) In Calif. State controller. Bien. rept. 1925-1926, Statements 13 and 14 following p.188,190.

1926: state and county (assessed) In Calif. State bd. equalization. Rept. 1925-1926, p.18.

Value Per Acre

1873,1872: counties (land assessed exclusive of city and town lots) In Calif. State bd. equalization. Rept. 1872-1873, p.26-27.

1875-1872(annual): counties (assessed acreage exclusive of city and town lots reported by assessors) In Calif. State bd. equalization. Rept. 1874-1875, p.8-11.

1877,1876: counties (average value per acre of land (exclusive of city and town lots and exclusive of improvements) assessed) In Calif. State bd. equalization. Bien. rept. 1876-77, p.13.

1879: counties (assessors' figures) In Calif. State bd. equalization. Rept. 1880,p.59.

1879,1878: counties (average value per acre of land assessed, exclusive of city and town lots, and exclusive of improvements) In Calif. State bd. equalization. Bien. rept. 1878-79, p.13.

1880: state and county (assessors' figures) In Calif. State bd. equalization. Rept. 1880, p. 59.

1880: counties (land held and assessed classified by size of holdings) In Calif. State bd. equalization. Rept. 1880, p.68-73. (Alameda county figures given by townships only; Placer county figure is for District no. 1 only)

1882: state and county (assessors' figures) In Calif. State bd. equalization. Rept. 1881 and 1882, p.52-53.

1882: counties (average value of land assessed) In Calif. Bd. R.R. commissioners. 4th Annual rept. 1883, p.56; 5th Annual rept. 1884, p.47.

Value Per Acre - Continued

1917(?): 4 counties (price list of land offered for sale by Southern Pacific Land Co.) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.21.

1917(?): 5 counties, total (assessed value per acre of land owned by the Southern Pacific Land Company, patented, unpatented, total) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif., 1919, p.21.

## LAND AND IMPROVEMENTS

Value

1849(?): state and county (land and improvements; exclusive of improvements; improvements) In Calif. State controller. Rept. 1849/50, p.534.

1850: state and county (value of land with improvements; without improvements; improvements) In Calif. State controller. Rept. 1850/51, p.497.

1850: counties (value of land with and without improvements, total value) In Calif. State controller. Rept. 1849/50.

1851: state and county (value without improvements; with improvements; improvements) In Calif. State controller. Rept. 1851/52, p.24.

1852: state and county (land; improvements) In Calif. State controller. Rept. 1851/52, p.26.

1852: state and county (value of land other than city and town lots; improvements) In Calif. State controller. Rept. 1852/53, p.18.

1853: state and county (assessed value of land; improvements) In Calif. State controller. Rept. 1852/53, p.24.

1853/54: state and county (land assessed) In Calif. State controller. Rept. 1853/54, p.16-17.

1854/55: state and county (land assessed) In Calif. State controller. Rept. 1854/55, p.20-21.

1855/56: state and county (land assessed) In Calif. State controller. Rept. 1855/56, p.28-29.

1857: state and county (land assessed) In Calif. State comptroller. Rept. 1856/57, p.28-29.

1857: counties (land assessed) In Calif. Surveyor gen. Rept. 1857, table 2, following p.22 (assessors' repts.)

1857/58: state and county (land assessed) In Calif. State controller. Rept. 1857/58, p.26-27.

1859: state and county (land assessed) In Calif. State controller. Rept. 1858/59, p.24-25.

1860: state and county (assessed value of land; improvements) In Calif. State controller. Rept. 1859/60, p.22-23.

1861: state and county (land assessed) In Calif. State controller. Rept. 1860/61, p.18-19.

LAND AND IMPROVEMENTS - Continued

Value - Continued

1880: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1880, p.60-61.

1881: state (assessed value of real estate, other than city and town lots, of improvements before increase added by board) In Calif. State bd. equalization. Rept. 1881 and 1882, p.24.

1881: state and county (assessed value of real estate other than city and town lots, of improvements after increase added by auditors; before increase added by board) In Calif. State bd. equalization. Rept. 1881 and 1882, p.26-27,30-31.

1881: counties (real estate exclusive of city and town lots; improvements) In Calif. State controller. California. Assessed value of property...for 1881, p.8-60.

1882: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1881 and 1882, p.46-47.

1882: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1881-1882, p.128-180.

1883: counties (assessed value of real estate other than city and town lots and of improvements before and after increase added by board) In Calif. State bd. equalization. Rept. 1883 and 1884, p.24,25.

1884: state and county (assessed value of real estate other than city and town lots and of improvements after increase added by board) In Calif. State bd. equalization. Rept. 1883 and 1884, p.38-39.

1884: counties (assessed value of real estate other than city and town lots and of improvements before increase added by board) In Calif. State bd. equalization. Rept. 1883 and 1884, p. 37.

1885: San Bernardino county (real estate exclusive of city and town lots; improvements) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.255 (County assessor)

1886: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1884-1886, p.134-186.

1886,1885: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1885 and 1886, p.22-23,32-33.

1888: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1887-1888, p. 146-198.

1888,1887: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1887 and 1888, p.14-15,28-29.

1890: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1889-1890, p. 138-190.

## LAND AND IMPROVEMENTS - Continued

Value - Continued

1890,1889: state and county (real estate other than city and town lots; improvements after equalization by board) In Calif. State bd. equalization. Rept. 1889 and 1890, p.16-17,26-27.

1891: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1891 and 1892, p.9,10.

1892: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1891 and 1892, p.23,24.

1892: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1891-1892, p.150-186.

1893: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1893 and 1894, p.13,14.

1894: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1893 and 1894, p.25,26.

1894: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1893-1894, p.152-188.

1895: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1895 and 1896, p.7,8.

1896: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1895 and 1896, p.47,48.

1896: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1895-1896, p. 160-198.

1897: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1897 and 1898, p.7,8.

1898: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1897 and 1898, p.49,50.

1898: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1897-1898, p.144-181.

1899-1902(annual): state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1899-1902, p.6-7,22-23,34-35,46-47.

1900: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1899-1900, p.152-184.

1900: state (land; value also expressed as per cent of total agricultural capital and compared with manufactures). In Calif. State comm. hort. Bien. rept. 1905-1906, p.333 (U.S.Census)

LAND AND IMPROVEMENTS - Continued

Value - Continued

1902: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1901-1902, p. 144-177.

1903,1904: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1903-1904, p.6-7,20-21.

1904: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1903-1904, p.156-188.

1904: counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1904 (See Contents under names of counties)

1905: counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

1905, 1906: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1905-1906, p.14-15,34-35.

1906: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1905-1906, p.158-188.

1906(tables headed 1905-06): counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1906. (See Contents under names of counties)

1907(tables headed 1906-07): counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)

1907,1908: state and county(real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1907-1908, p.24-25,54-55.

1908(tables headed 1907-08): counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)

1908: counties (real estate other than city and town lots; improvements) In Calif. State controller. Bien. rept. 1907-1908, p.198-231.

1909(tables headed 1908-09): counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)

1909,1910: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1909-1910, p.18-19,24-25.

1910(tables headed 1909-10): counties (value of improvements on country real estate) In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)

1911,1912: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1911-1912, p.30-31,34-35.

Value - Continued

1914,1913: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1913-1914, p.66-67,70-71.

1915: state and county (assessment value, appraised value of land and improvements outside of incorporated cities; actual values) In Calif. State tax commission. Rept. 1915/16, p.242,249 (Percentage of assessed to actual value based on 1915 assessments, p.251; based on 1916 assessments p.252)

1916: state and county (assessed value, appraisal value, actual value, of acreage outside incorporated cities) In Calif. State tax commission. Rept. 1915/16, p.247-251.

1916,1915: state and county (assessed values of nonoperative; of operative property land; improvements outside of incorporated cities) In Calif. State tax commission. Rept. 1915/16, p.164-171.

1916,1915: state and county (real estate other than city and town lots; improvements) In Calif. State bd. equalization. Rept. 1915-1916, p.36-37,40-41.

1917: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1917-1918, p.17,18.

1917(?): 5 counties, total (assessed valuation of land owned by the Southern Pacific Land Company, patented; unpatented; total) In Calif. Comm. immigration and housing. Rept. on large land holdings in Southern Calif., 1919, p.21.

1917(?): 8 counties, total (assessed valuation of holdings in excess of 2000 acres; improvements) In Calif. Comm. immigration and housing. Rept. on large land holdings in Southern Calif., 1919, p.11.

1918: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1917-1918, p.21,22.

1919: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1919-1920, p.12,13.

1920: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1919-1920, p.16,17.

1921: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1921-1922, p.15,16.

1922: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1921-1922, p.19-20.

1923: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1923-1924, p.13,14.

1924: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1923-1924, p.17,18.

Value - Continued

1925: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1925-1926, p.14,15.

1926: state and county (assessed value after equalization by board of real estate outside municipalities, improvements) In Calif. State bd. equalization. Rept. 1925-1926, p.18,19.

Value - Japanese

1912(March): state (assessed value of land and improvements owned by Japanese) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.605 (Assessment rolls)

1912,1909: state (comparison of assessed valuation of land and improvements owned by Japanese; increase or decrease) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.605. (Assessment rolls)

## DELHI AND DURHAM STATE LAND SETTLEMENTS

Acreage in Farms

1918: Durham state land settlement (acreage in farm allotments and farm laborers' allotments) In Calif. State land settlement bd. Farm allotments and farm laborers' allotments in the Durham state land settlements, table 1, p.6; and table I following p.6 (there are 2 publications of the same name but having different figures); in its Rept. 1917/18, appendix I, p.29-30.

1920: 1st unit, Delhi state land settlement plan (area of farm allotments in acres; more or less; farm laborers' allotments) In Calif. State land settlement.bd. Farm allotments and farm laborers' allotments in the Delhi state land settlement, table I, p.4.

1922(?): State land settlement at Delhi, Merced county. In Calif. Dept. public works. Div. land settlement. Farming in Merced county, Calif., p.7.

Crops

Acreage

1922: Durham state land settlement (miscellaneous crops; total crops; alfalfa, beans; corn; gardens; grain and grain hay; milo maize; pasture, summer fallow, etc.) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt.5, p.20.

Returns from Grain Crops

1918(?): 9 allotments of Durham state land settlement (net return of settler from grain crops - oats, barley, wheat - planted by the state board preparatory to settlement) In Calif. State land settlement bd. Information regarding progress under the land settlement act, p.17-18.

1918: 11 allotments of Durham state land settlement (net return of settler from grain crops - oats, barley, wheat - planted by the state board preparatory to settlement) In Calif. State land settlement bd. Rept. 1917/18, p.11-13.

Dairy Products

Sales (Quantity and Value)

1920 (daily for one week - ended Oct. 9): Durham state land settlement (whole milk; butterfat; cream) In Calif. State land settlement bd. Rept. 1918/20, p.16 (Price of cream also given)

Family Farms

Acreage

Average acreage and range of acreage of a family farm doing diversified farming; of a grain family farm, and of a fruit family farm (data obtained from farmers) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.90.

Capital Required and Possible Returns

Capital for itemized expenses - living and operating - required until industry is self-supporting; 5 types of farms are given - grain, fruit, poultry, dairy and diversified farming. In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.97. Capital required for operating and living expenses after industry is fully established for same farms, p.98. Summary of capital requirements and possible returns also p.98. Tables showing sum business should pay on these farms and comparison of farm needs and returns, p.100.

Cost of Equipping

Family farms doing diversified farming; fruit ranch; grain ranch; poultry farm; dairy ranch segregated costs of equipping - total, buildings, fences, implements and machinery, work stock, livestock, etc. In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.92. Detailed costs on p.93-95.

Livestock - Number

Average number of fowls and range in number on a poultry "family farm"; average number of cows and range in number on a dairy "family farm," (data obtained from farmers) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.90.

Value (Total and Per Acre)

Average acreage of a "family farm"; grain farm; a family farm doing diversified farming; dairy farm; poultry farm; fruit farm. (data obtained from farmers) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.91.

Farm Business and Financial Summaries

Comparison of outlay of settlers on a 40-acre farm under state and private purchase for first 2 years. In Calif. State bd. agr. Statistical repts. 1920, p.25; 1921, p.24.

Farm Business and Financial Summaries - Continued

Financial data of 2 typical farmers of the Durham settlement - area of allotments, price, deposits, amount of installments, value of improvements, value of equipment, initial capital, present capital, etc. given. In Calif. State land settlement board. How Calif. helps men own farms and rural homes, June 1920, p.11.

Financial statement as of Aug. 1, 1927 for Delhi and Durham state land settlements. In Calif. Dept. agr. Monthly bul. v.16, Dec. 1927, p.755. (General statistical and financial report - showing statement of acreage, cost and selling price p.758; status of investment of state of California in land settlement ... p. 758.

The State land settlements at Durham and Delhi give two typical examples of expenses of settlers in colonizing raw land - details of a 20-acre farm; cost on 40 acres. In Calif. Agr. exp. sta. Rept. 1921/22, p.154.

The State land settlements at Durham and Delhi give examples of what has been earned on 20 farms of settlers colonizing raw land. The summary includes acreage in farms; acreage used for crops; acreage irrigated; income from crops; from livestock; value of fixed capital; value of operating capital; inventory value and a general summary showing the investment and the net income. In Calif. Agr. exp. sta. Rept. 1921/22, p.155-157.

1921(Oct.1): Durham State land settlement colony (farm business summary for 20 farms - size of farm; income, fixed farm capital; operating capital; total credit; total expense and net farm income given) In Calif. Agr. exp. sta. Circ. 247, p.24-26; also for 4 farm laborers with 2-acre allotments on p.28.

1922: The Ballico Unit of the Delhi land settlement, Merced county (data for farms to be thrown open to the inspection of settlers and of farm laborers' allotment - acreage, price, total value, deposit required, semi-annual payment required for each farm; value of improvements, deposit on improvements required given for 2 farms only) In Calif. Dept. public works. Div. land settlement. Information for intending settlers regarding the Ballico Unit, p.10-12.

1922-1918(annual): 2 farms in the Durham State Land Settlement (statement of a typical settler's experience in the purchase and development of a Durham farm; statement of assets and liabilities as of Aug. 1, 1922; statement showing operating accounts on a 10 year payment plan) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt.5, p.25-33.

1925-1913(annual): Durham State Colony (chart showing relative cost of developing land and relative price of butter fat for 1913-1925; area included in new land contracts each year for 1917-1925; amount of loans to settlers for improvements for 1918-1925) In Calif. Agr. exp. sta. Bul. 435, p.83.

Improvements

Total amount added to cost of land on first unit of land sold to June 20, 1920; selling price; value of improvements on land at time of purchase; value of improvements added after purchase - total and by individual allotments Delhi settlement. In Calif. State land settlement bd. Rept. 1918/20, p.69.

1918: Durham State Land Settlement (value of improvements; deposit on improvements; half-yearly installments) In Calif. State land settlement bd. Farm allotments and Farm laborers' allotments in the Durham State land settlement, table I, p.6 and table I following p.6 (there are 2 publications of the same name but not having the same figures); also in its Rept. 1917/18, p.29-30.

1920: 1st unit, Delhi State land settlement plan (value of improvements; deposit on improvements; half-yearly installments) In Calif. State land settlement bd. Farm allotments and farm laborers' allotments in the Delhi state land settlement, table I, following p.4.

1922(?): State land settlement at Delhi, Merced county (value of improvements; deposit on improvements, half-yearly installment on improvements) In Calif. Dept. public works. Div. land settlement. Farming in Merced county, Calif. p.7.

Labor

1920(year ended June 1): Durham Colony (record of labor exchanged on 1 ranch showing days worked by each and value of the labor) In Calif. State land settlement bd. Rept. 1918/20, p.18.

Land - Price

1916: Calif., geographical divisions of U.S. (average price of improved land; unimproved) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.18 (Table showing prices paid for land by colonists in Calif. and in other countries also given on p.18.)

1918: Durham State land settlements (price per acre of land to be opened; total price; deposit on land; half-yearly payments) In Calif. State land settlement bd. Farm allotments and Farm laborers' allotments in the Durham state land settlement, table I, p.6 and table I following p.6. (there are 2 publications of the same name but not having the same figures); also in its Rept. 1917/18, appendix 1, p.29-30.

1920: 1st unit, Delhi State land settlement (subdivisional plan) (price per acre; total price; deposit on land; semi-annual payment) In Calif. State land settlement bd. Farm allotments and farm laborers' allotments in the Delhi state land settlement, table 1, following p.4. ("Subdivisional plan" of farm laborers' allotments also given)

1922(?): State land settlement at Delhi, Merced county (price per acre; total price; deposit on land; semi-annual payment) In Calif. Dept. public works. Div. land settlement. Farming in Merced county, Calif. p.6-7.

## DELHI AND DURHAM STATE LAND SETTLEMENTS - Continued

### Purchasing Power of Farm Products

1921-1916(quarterly): Durham state land settlement (diagram showing the decline in the price of farm products from 1919 to 1922 and the relation of this to the cost of buying and operating farms) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 5, p.24.

## INDIAN RESERVATIONS

### Area Unallotted

1910,1900,1890,1880: area unallotted. In Calif. State bd. agr. Rept. 1911, p.10.

1911(?): Indian reservations - total and by reservation (area unallotted) In Calif. State bd. agr. Rept. 1911, p.15 (Names of school and tribes on reservations given)

1912,1900,1890,1880: area unallotted. In Calif. State bd. agr. Rept. 1912, p.2.

1913,1912,1900: area unallotted. In Calif. State bd. agr. Statistical rept. 1913, p.2.

1914,1913,1912,1900: area unallotted. In Calif. State bd. agr. Statistical rept. 1914, p.2.

1915-1912(annual): area unallotted. In Calif. State bd. agr. Statistical rept. 1915, p.2.

1916,1915,1900,1890: area unallotted. In Calif. State bd. agr. Statistical rept. 1916, p.2.

1920-1917,1915,1900,1890(annual as of June 30): land area unallotted. In Calif. State bd. agr. Statistical rept. 1920, p.10 (Same statistics for shorter periods within these dates in Repts. 1919, p.4; 1918, p.3; 1917, p.3)

## LAND IN ORIGINAL HOMESTEAD ENTRIES

### Acreage

1910-1900(annual): state. In Calif. State bd. agr. Rept. 1911, p.11.

1915-1902(annual): state. In Calif. State bd. agr. Statistical rept. 1915, p.2 (Similar statistics for shorter periods within these dates in Repts. 1912, p.3; 1913, p.2; 1914, p.2)

1916,1915,1913: state (land area patented) In Calif. State bd. agr. Statistical rept. 1916, p.3.

1918-1903(annual, as of June 30): state. In Calif. State bd. agr. Statistical rept. 1918, p.4. (1903-1917 also in Rept. 1917, p.3; 1903-1916 also in Rept. 1916, p.3)

1920-1905(annual, as of June 30): state. In Calif. State bd. agr. Statistical repts. 1920, p.10; 1921, p.18 (1905-1919 also in Rept. 1919, p.3)

## PUBLIC LAND

### Acreage

1855: Colusi county (claimed by Spanish grants; belonging to state) In Calif. Surveyor gen. Annual rept. 1855, p.269 (County assessor)

1859(?): state (public lands fit for cultivation, acres of swamp and overflowed lands belonging to the state; acreage probably to be confirmed under Mexican grants) In Calif. state agr. soc. Trans. 1859, p.362 (Sacramento Union and San Francisco Bulletin)

1880: San Diego county (total area; area in Mexican and Spanish grants; acres in public lands) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.255 (Surveyor gen.'s rept.)

1883(?): state (area of state; area unentered govt. land; area suitable for some agricultural purpose) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.170.

1883(?): counties (unentered govt. land) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.170.

1883(?): Sonoma and Santa Cruz counties (acreage open for preemption exclusive of town lots) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.113,120, question 5.

1885(?): counties-rept. from Washington and Eden townships, Alameda county (acreage open for preemption exclusive of town lots) In Calif. Bur labor statistics. 2d Bien. rept. 1885-86, p.645-746, question 5. (County assessors)

1910-1900(annual): state (public and Indian lands entered) In Calif. State bd. agr. Rept. 1911, p.11.

1910,1900,1890: state (vacant public land unappropriated and unreserved-surveyed, unsurveyed, total, percent of total land area) In Calif. State bd. agr. Rept. 1911, p.11.

1911(year ended July 1): state, compared with other states and U. S. (vacant public land unappropriated and unreserved - surveyed, unsurveyed and total) In Calif. State bd. agr. Rept. 1911, p.14.

1912(year ended July 1; table headed July 1, 1911): state, compared with other states and U.S. (vacant public land unappropriated and unreserved - surveyed, unsurveyed, total) In Calif. State bd. agr. Rept. 1912, p.7.

1913: state (surveyed to June 30, 1913, surveyed during 1913; unsurveyed; total land area) In Calif. State bd. agr. Statistical rept. 1913, p.3.

1913(year ended July 1): state, compared with other states and U.S. (vacant public land unappropriated and unreserved) In Calif. State bd. agr. Statistical rept. 1913, p.7.

1913(year ended July 1): counties (vacant public lands in counties situated in more than one land district - surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical rept. 1913, p.6.

1913(year ended July 1): land districts (vacant public lands unappropriated and unreserved - surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical rept. 1913, p.7.

1914: state (unappropriated and unreserved; surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical rept. 1914, p.3.

## PUBLIC LAND - Continued

Acreage - Continued

1914(year ended July 1): counties (vacant public lands in counties situated in more than one land district - surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical rept. 1914, p.6.

1915-1902(annual): state (public and Indian lands entered) In Calif. State bd. agr. Statistical rept. 1915, p.2 (Similar statistics for shorter periods within these dates in Repts. 1912, p.3; 1913, p.2; 1914, p.2)

1915,1914,1913,1912,1900,1890: state (vacant public lands unappropriated and unreserved - surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical rept. 1915, p.3 (Similar statistics for shorter periods within these dates in Repts. 1912, p.3; 1913, p.2; 1914, p.3)

1918-1903(annual as of June 30): state (public and Indian lands entered) In Calif. State bd. agr. Statistical rept. 1918, p.4 (Similar statistics for shorter periods within these dates in Statistical repts. 1916, p.3; 1917, p.3)

1919-1905(annual as of June 30): state (Indian and public lands entered) In Calif. State bd. agr. Statistical rept. 1919, p.2.

1920-1905(annual as of June 30): state (Indian and public lands entered) In Calif. State bd. agr. Statistical repts. 1920, p.10; 1921, p.18.

1920-1911(years ended July 1): state, district, county (vacant public land unappropriated and unreserved - surveyed, unsurveyed, total, with a brief description as to character of land) In Calif. State bd. agr. Statistical repts. 1920, p.17-19; 1921, p.14-16; 1919, p.6-8; 1918, p.10-11; 1917, p.9-10, 1916, p.7-9; 1915, p.7-9; 1914, p.5-6; 1913, p.5-6; 1912, p.5-7; 1911, p.12-14. (Each rept. gives data for one year only)

1920-1912,1900(annual as of June 30): state (vacant public land unappropriated and unreserved - surveyed, unsurveyed, total) In Calif. State bd. agr. Statistical repts. 1920, p.10; 1921, p.18. (Similar statistics for shorter periods within these dates in Statistical repts. 1916, p.3; 1917, p.4; 1918, p.4; 1919, p.3)

Acreage Sold

1858(?): Humboldt, Alameda counties; total (state lands owned by virtue of her sovereignty) In Calif. Surveyor gen. Rept. 1858, p.17.

Value of Public Land for Irrigation Work

1914: state (receipts from sale of land to June 30; allotments to June 30; net investment to June 30; allotments and investments also classified by project, with per cent chargeable to state) In Calif. State bd. agr. Statistical repts. 1914, p.150; 1915, p.190.

1916: state (receipts from sale of land for fiscal year 1916 and total to June 30, 1916; allotments for fiscal year 1916 and total to June 30, 1916; net investments for fiscal year 1916 and total to June 30, 1916; allotments and investments also classified for same period by projects, with per cent chargeable to state) In Calif. State bd. agr. Statistical rept. 1916, p.199.

Value of Public Land for Irrigation Work - Continued

1916,1917: state (receipts from sale of public land for fiscal years 1916 and 1917 and total value to June 30 of each year; allotments for fiscal years 1916 and 1917 and total to June 30 of each year; net investments for fiscal years 1916 and 1917 and total to June 30 of each year; allotments and investments also classified for 1917 by projects) In Calif. State bd. agr. Statistical rept. 1917, p.221.

1917, 1918: state (receipts from sale of public land for fiscal years 1917 and 1918 and total to June 30 of each year; allotments for fiscal years 1917 and 1918 and total to June 30 of each year; net investments for fiscal years 1917 and 1918 and total to June 30 of each year; allotments and investments also classified for 1918 by projects) In Calif. State bd. agr. Statistical rept. 1918, p.246.

## SWAMP AND OVERFLOWED LAND

Acreage

Acres listed to the state by the U.S.: state and county. In Calif. Surveyor gen. Bien. rept. 1902/04, p.12.

1855: Solano county (acreage in swamp; acreage subject to overflow) In Calif. Surveyor gen. Rept. 1855, p.253.

1856(prior to Jan.7): 5 counties and total (approved; not approved: total; no. of surveys) In Calif. Surveyor gen. Rept. 1855, p.31.

1858-1855(annual): state and county (swamp and overflowed land which has been surveyed and returned to Office of Surveyor General under Act of April 1855; also acreage returned in 1858 under Act of 1858) In Calif. Surveyor gen. Rept. 1858, p.16-17.

1908: state, compared with U.S. In Calif. State bd. agr. Rept. 1911, p.213.

## AGRICULTURAL LAND

Acreage

Arable land - includes rolling land: state and county. In Calif. State bd. agr. Repts. 1911, p.10; 1912, p.2.

Maps of Calif. on which agricultural lands are indicated. In Calif. Dept. public works. Bul. 4, facing p.36,46; Bul. 5, facing p.44, 328; Bul. 6, facing p.196; Bul. 9, facing p.10,18.

1852: Shasta county (square acres of arable land (on the Sacramento river, Cow creek and its tributaries, Cottonwood creek, total) In Calif. Surveyor gen. Rept. 1852, p.46. (Rept. of county assessor or surveyor)

1854: Amador county (agricultural land) In Calif. Surveyor gen. Rept. 1854, p.63 (County assessor)

1855: San Luis Obispo county (agricultural land) In Calif. Surveyor gen. Rept. 1855, p.299 (County assessor)

## AGRICULTURAL LAND - Continued

Acreage - continued

1855: Solano, Colusi, Napa, and Yuba counties (land suitable for cultivation or tillage - Napa county reports acreage assessed - nearly all adapted to grazing or tillage) In Calif. Surveyor gen. Rept. 1855, p.253,269,277,320 (County surveyors and assessors)

1861: El Dorado county (agricultural land) In Calif. Surveyor gen. Rept. 1862, p.106 (Assessor's rept.)

1885(?): counties - repts. from Washington and Eden Townships for Alameda county (acreage under cultivation; fit for cultivation but not cultivated; unfit for cultivation - exclusive of town lots) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746, questions 2,3, and 4. (County assessors)

1889(?): Humboldt county (adapted to agriculture) In Calif. State bd. hort. Annual rept. 1889, p.481.

1893: Humboldt county (agricultural land) In Calif. state agr. soc. Trans. 1894, p.264.

1908(?): Solano county (area available for different modes of cultivation) In Calif. state agr. soc. Rept. 1908, p.186 (Com. by E. N. Eager)

1909(?): Solano county (area available for different modes of cultivation.) In Calif. state agr. soc. Rept. 1909, p.172 (Comp. by E. N. Eager)

1912: Coachello Valley; Palm Springs; desert at Seven Palms, desert below Mission Canyon; Morongo Valley; eastern slope of San Gorgonio Pass; total (agricultural land) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix D, p.15; in its Bul. 4, p.15.

1916(Oct.1): counties, total (acreage tillable - holdings of 2000 acres or more; number of owners) In Calif. State tax commission. Rept. 1915/16, p.278.

1920/21: state and county (agricultural area; irrigated area of valleys; plains; foothills; total) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 3, p.52-53.

1922(?): 16 sections of Calif., total (table and map showing agricultural areas) In Calif. Dept. public works. Bul. 4, table 2, p.37 and plate III facing p.36. Same table found in Bul. 6, p.29.

1922(?): 16 sections of Calif. (agricultural area) In Calif. Dept. public works. Bul. 6, p.32-68.

## FARM LAND

Acreage Cultivated

1852: state. In Calif. State bd. agr. Rept. 1911, p.34 (State census)

1852: counties (state total, p.58) In Calif. census of 1852, p.14-56.

1854: 7 counties. In Calif. Surveyor gen. Annual rept. 1854, p.76. Alameda county, p.62 (County assessors)

1854: Colusi county (acres under cultivation) In Calif. Surveyor gen. Rept. 1855, p.270 (County assessor)

1855: counties. In Calif. Surveyor gen. Rept. 1855, following p.50. Total for all counties p.51 (County assessors)

## FARM LAND - Continued

Acreage Cultivated - Continued

1855: 7 counties. In Calif. Surveyor gen. Rept. 1855, p.253,269,274, 277,311,318,320 (Cultivated lands of Los Angeles county (p.274) are classified as temporal; natural wetness; irrigated acreage - County assessors)

1855: San Luis Obispo county (wheat land under cultivation) In Calif. Surveyor gen. Rept. 1855, p.299 (County assessor)

1856: counties. In Calif. Surveyor gen. Rept. 1856, following p.30. State total p.31 (County assessors)

1857: counties. State total p.23. In Calif. Surveyor gen. Rept. 1857, table 1, following p.22 (Assessors' repts.)

1859(?): state (probable aggregate of land fit for cultivation) In Calif. state agr. soc. Trans. 1859, p.362 (Sacramento Union and San Francisco Bulletin)

1859,1858: counties. In Calif. Surveyor gen. Rept. 1859, p.32-33. (1859 also in table 1, following p.30) (Assessors' repts.)

1860: counties. In Calif. Surveyor gen. Rept. 1860, table 1, following p.30 (Assessors' repts.)

1860,1859: state and county. In Calif. Surveyor gen. Rept. 1860, p. 32-33.

1861: state and county. In Calif. Surveyor gen. Rept. 1862, p.54-55. (acres cultivated also given for some counties elsewhere in this report)

1861: counties. In Calif. Surveyor gen. Rept. 1861, table 1, following p.16. Yolo county acreage also p.49 (County assessors)

1863: state and county. In Calif. state agr. soc. Trans. 1863, p.230; in Calif. Surveyor gen. Rept. 1863, p.76-77 (County assessors)

1863: Monterey county. In Calif. Surveyor gen. Rept. 1864, p.72. (Assessor's rept.)

1864: counties. In Calif. Surveyor gen. Rept. 1864, p.30-31. (Assessors' repts.)

1865: counties. In Calif. Surveyor gen. Rept. 1865, p.118-119. (Assessors' repts.)

1867,1866: counties. In Calif. state agr. soc. Trans. 1866 and 1867, p.548-549; in Calif. Surveyor gen. Rept. 1865/67, p.70-71. (County assessors)

1868,1867: state and county. In Calif. state agr. soc. Trans. 1868, p.132-133; in Calif. Surveyor gen. Bien. rept. 1867/69, p.16-17. (County assessors)

1869,1868: state and county. In Calif. state agr. soc. Trans. 1869, p.354-355; in Calif. Surveyor gen. Bien. rept. 1867/69, p.52-53. (County assessors)

1870,1869: state and county. In Calif. state agr. soc. Trans. 1870, p.172-173; in Calif. Surveyor gen. Bien. rept. 1869/71, p.12-13; Statistical rept. 1869, p.6-7 (County assessors)

1871,1870: state and county. In Calif. Surveyor gen. Rept. 1869/71, p.66-67; in Calif. state agr. soc. Trans. 1871, p.382-383. (Assessors' repts.)

## FARM LAND - Continued

### Acreage Cultivated - Continued

1872: Mariposa, Mendocino counties. In Calif. state agr. soc. Trans. 1873, p.253,256; in Calif. Surveyor gen. Rept. 1871/73, p.83,86. (County assessors)

1872,1871: state and county. In Calif. state agr. soc. Trans. 1872, p.381-383; 1873, p.200-201; in Calif. Surveyor gen. Bien. rept. 1871/73, p.26-27 (County assessors)

1873: state and county. In Calif. state agr. soc. Trans. 1874, p.206-207; in Calif. Surveyor gen. Bien. rept. 1873/75, p.26-27.

1873: Tehama county. In Calif. state agr. soc. Trans. 1873, p.259, 262; in Calif. Surveyor gen. Bien. rept. 1871/73, p.89,92 (County assessors)

1873,1872: state and county. In Calif. state agr. soc. Trans. 1873, p.226-7; in Calif. Surveyor gen. Bien. rept. 1871/73, p.54-55. (County assessors)

1874: state and county. In Calif. state agr. soc. Trans. 1875, p.118-119; in Calif. Surveyor gen. Bien. rept. 1873/75, p.50-51. (County assessors)

1876,1875: state and county. In Calif. state agr. soc. Trans. 1876, p.92-93,114-115; in Calif. Surveyor gen. Bien. rept. 1875/77, p.20-21,42-43 (County assessors).

1877: state and county. In Calif. state agr. soc. Trans. 1878, p.340-341 (County assessors)

1879: state and county. In Calif. State bd. equalization. Rept. 1880, p.114.

1879,1878: state and county. In Calif. state agr. soc. Trans. 1879, p.226-227,248-249; in Calif. Surveyor gen. Bien. rept. 1877/79, p.8-9,30-31 (County assessors)

1880(table headed 1879-80): counties. In Calif. Surveyor gen. Rept. 1879/80, p.56-57 (County assessors)

1881: state and county. In Calif. State bd. equalization. Rept. 1881 and 1882, p.52-53.

1881(table headed 1880-81): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.58 (County assessors)

1882: state and county. In Calif. State bd. equalization. Rept. 1883 and 1884, p.106.

1882(table headed 1881-82): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.73 (County assessors)

1883(?): Stanislaus; Sonoma; Santa Cruz counties (acreage under cultivation; unfit for cultivation; exclusive of town lots) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-1884, p.106,113,120, question 2,3.

1883,1882,1880,1878: Los Angeles county. In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.206 (County assessor)

### Acreage in Farms

1870(?): Calif.; other states, territories; U.S. (no. of acres in farms; no. acres not in farms; no. acres in total area) In Calif. state agr. soc. Trans. 1873, p.284-5. (From Rept. of Comm. of agr. 1872)

Acreage in Farms - Continued

1900: Indian reservations. In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1910: state and county. In Calif. State bd. agr. Repts. 1912-1918.

1910: 8 counties, total (total land area; acres in farms) In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif. 1919, p.9. Land in farms also given on p.13 (U.S. Census)

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1910,1900: counties. In Calif. State bd. agr. Repts. 1911, 1914-1918. (U. S. Census)

1910,1900: state. In Calif. State bd. agr. Repts. 1912-1918 (Amount and per cent of decrease over 1900 are given in some cases)

1917: acreage of farm land operated by 73 private firms; principal crop; no. of men normally employed. In Calif. Agr. exp. sta. Circ. 193, p.42-44. (Names and addresses of the 73 firms given)

1918: state (area of state also given) In Calif. State comm. hort. Bien. rept. 1917-1918, p.5.

1920: state and county (all land in farms) In Calif. State bd. agr. Statistical rept. 1921, p.34-35.

1920: 7 counties, total (total land in farms) In Calif. Agr. exp. sta. Bul. 350, p.175 (1920 census)

1920-1850(10 year periods): state (per cent of land area in farms also given) In Calif. State bd. agr. Statistical rept. 1921, p.37,38 (Per cent of increase p.38)

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical rept. 1920, p.26 (With per cent of increase 1860-1920, p.28)

1920,1910: state (total) In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.40.

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

Acreage in Farms (Classified by Color and Nativity of Farmers)

1920: state (colored farmers classified by race) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Acreage in Farms (Classified by Sex and Tenure of Farmer)

1920: state. In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Acreage in Farms (Classified by Size Groups)

1920,1910: state. In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.40.

## FARM LAND - Continued

### Acreage in Farms (Classified by Tenure of Farmer)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920,1910: state (includes total acreage, and per cent distribution of all land in farms) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921,p.42.

### Acreage Inclosed

1855: San Joaquin, Sonoma and Yolo counties (San Joaquin county reports acres of land under fence and improvements; Sonoma and Yolo, land inclosed) In Calif. Surveyor gen. Rept. 1855, p.298,311,318 (County assessors)

1857: counties. In Calif. Surveyor gen. Rept. 1857, table 1, following p.22. State total p.23 (Assessors' repts.)

1858: 5 counties. In Calif. Surveyor gen. Rept. 1858, following p.32. (County assessors)

1859: 6 counties. In Calif. Surveyor gen. Rept. 1859, table 1, following p.30 (Assessors' repts.)

1860: counties. In Calif. Surveyor gen. Rept. 1860, table 1, following p.30. (Assessors' repts.)

1861: counties. In Calif. Surveyor gen. Rept. 1861, table 1, following p.13. Yolo county acreage also p.49 (County assessors)

1861: state and county. In Calif. Surveyor gen. Rept. 1862, p.54-55. Also given for some counties elsewhere in this report (County assessors)

1863: state and county. In Calif. Surveyor gen. Rept. 1863, p.76-77; In Calif. state agr. soc. Trans. 1863, p.230 (County assessors)

1863: Monterey county (inclosed; inclosed for pasture) In Calif. Surveyor gen. Rept. 1864, p.72 (Assessor's rept.)

1864: counties. In Calif. Surveyor gen. Rept. 1864, p.30-31 (Assessors' repts.)

1865: counties. In Calif. Surveyor gen. Rept. 1865, p.118-119 (Assessors' repts.)

1866: state and county. In Calif. Surveyor gen. Rept. 1865/67, p.70-71; in Calif. state agr. soc. Trans. 1866 and 1867, p.548 (County assessors)

1867: state and county. In Calif. state agr. soc. Trans. 1868, p.132-133; in Calif. Surveyor gen. Bien. rept. 1867/69, p.16-17 (County assessors)

1868: state and county. In Calif. state agr. soc. Trans. 1869, p.354-355; in Calif. Surveyor gen. Bien. rept. 1867/69, p.52-53 (County assessors)

1869: state and county. In Calif. Surveyor gen. Statistical rept. 1869, p.6-7; in Rept. 1869/71, p.12 and 13 (County assessors)

1870: state and county. In Calif. Surveyor gen. Bien. rept. 1869/71, p.66-67 (Assessors' returns)

1870,1869: state and county. In Calif. state agr. soc. Trans. 1870, p.172-173.

## FARM LAND - Continued

### Acreage Inclosed

1870(table headed 1870-71): state and county. In Calif. state agr. soc. Trans. 1871, p.382-383 (County assessors)
1871: state and county. In Calif. state agr. soc. Trans. 1872, p.381-383; 1873, p.200-201; in Calif. Surveyor gen. Bien. rept. 1871/73, p.26-27 (County assessors)
1872: state and county. In Calif. state agr. soc. Trans. 1873, p.226-227; in Calif. Surveyor gen. Bien. rept. 1871/73, p.54-55. (County assessors)
1872: Mariposa, Mendocino counties. In Calif. state agr. soc. Trans. 1873, p.253,256; in Calif. Surveyor gen. Bien. rept. 1871/73, p.83,86 (County assessors)
1873: state and county. In Calif. state agr. soc. Trans. 1874, p.203-207 (Tehama county, p.259); in Calif. Surveyor gen. Bien. rept. 1873/75, p.26-27 (Tehama county, p.89)
1874: state and county. In Calif. state agr. soc. Trans. 1875, p.118-119; in Calif. Surveyor gen. Bien. rept. 1873/75, p.50-51. (County assessors)
1876,1875: state and county. In Calif. state agr. soc. Trans. 1876, p.92-93,114-115; in Calif. Surveyor gen. Bien. rept. 1875/77, p.20-21,42-43 (Assessors' returns)
1877: state and county. In Calif. state agr. soc. Trans. 1878, p.340-341 (Assessors' returns)
1879: state and county. In Calif. State bd. equalization. Rept. 1880, p.114.
1879,1878: state and county. In Calif. state agr. soc. Trans. 1879, p.226-227,248-249; in Calif. Surveyor gen. Bien. rept. 1877/79, p.8-9,30-31 (Assessors' returns)
1880(table headed 1879-80): counties. In Calif. Surveyor gen. Rept. 1879/80, p.56-57 (Assessors' returns)
1881: state and county. In Calif. State bd. equalization. Rept. 1881 and 1882, p.52-53.
1881(table headed 1880-81): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.58 (Assessors' returns)
1882: state and county. In Calif. State bd. equalization. Rept. 1883 and 1884, p.106.
1882:(table headed 1881-82): counties. In Calif. Surveyor gen. Bien. Rept. 1880/82, p.73 (Assessors' returns)

### Acreage Owned or Managed by Orientals

1909(Nov.1); from Nov. 1, 1909, to Dec. 1, 1912: state and county (no. of leases to Japanese; total acreage) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.637 (Does not represent all land leased to Japanese as most of share leases are not recorded)
1912(March): state (total acreage owned by Japanese) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.605 (Assessment rolls)
1912: state and county (owned by Japanese) In Calif. State bd. agr. Repts. 1912-1918.

## FARM LAND - Continued

Acreage Owned or Managed by Orientals - Continued

1912(compared with 1909): state (no. of leases and acreage leased to Orientals) In Calif. State bd. agr. Repts. 1912-1918. (U. S. Bur. of labor statistics)

1912,1909: state and county (comparison of acreage owned by Japanese; increase or decrease) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.634. State only, p.605 (From assessment rolls of March 1909 and 1912)

1912: state and county (no. of leases and acreage leased to Japanese) In Calif. State bd. agr. Repts. 1912-1918 (U. S. Bur. of labor statistics)

1918(?): 6 districts and total; Southern Calif.; grand total (ownership; tenant; contract; total) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.222.

1919(Dec.31): state and county (land-irrigated and unirrigated - owned and leased by Japanese; Chinese; Hindus) (In Calif. State bd. control. Calif. and the Oriental, 1922 ed. p.48 (From county repts. and farm advisors and hort. comm.)

Idle Acreage

1917(?): counties (acreage reported idle by owners; by others; total acreage) In Calif. Agr. exp. sta. [unnumbered circ.] "The Utilization of Idle Lands for Wheat."

Improved Acreage

1860,1850: state. In Calif. State bd. agr. Rept. 1911, p.34 (Federal census)

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.366-367 (U. S. Census 1870)

1900-1850(10 year periods): state and county (acres improved) In Calif. State bd. agr. Rept. 1911, p.84-85.

1900,1890: state and county. In Calif. State bd. agr. Rept. 1912, p.75.

1900,1890,1880,1870: Fresno county. In Calif. state agr. soc. Rept. 1909, p.62.

1910: state and county. In Calif. State bd. agr. Repts. 1912-1918.

1910: 8 counties, total. In Calif. Comm. immigration and housing. Rept. on large landholdings in Southern Calif. 1919, p.9.

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1910,1900: state (amount and per cent of decrease over 1900 in some cases) In Calif. State bd. agr. Repts. 1911-1918.

1910,1900: counties. In Calif. State bd. agr. Repts. 1911, 1914-1918 (U. S. Census)

1918: state. In Calif. State comm. hort. Bien. rept. 1917-1918, p.5.

1920: state and county. In Calif. State bd. agr. Statistical rept. 1921, p.34-35.

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical rept. 1921, p.37,38 (Per cent of increase 1870-1920, p.38; per cent of farm land improved 1850-1920, p.38)

## FARM LAND - Continued

Improved Acreage - Continued

1920-1850(10 year periods): state (with per cent of increase 1870-1920, p.28) In Calif. State bd. agr. Statistical rept. 1920, p.26.

1920,1900,1880,1860,1850: state (chart showing growth of area in improved farm land and in irrigated farm lands) In Calif. Agr. exp. sta. Bul. 435,p.11; in Calif. Dept. public works. Bul. 6, p.13. (U. S. Census)

1920,1910: state. In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.40.

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

Improved Acreage in Farms (Classified by Color and Nativity of Farmers)

1920: state (colored farmers classified by race) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Improved Acreage in Farms (Classified by Sex and Tenure of Farmers)

1920: state. In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Improved Acreage in Farms (Classified by Size of Farms)

1920,1910: state. In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.40.

Improved Acreage in Farms (Classified by Tenure of Farmers)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920,1910: state (includes total acreage; and per cent distribution) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.42.

Improved Acreage Per Farm (Average)

1920: state (classified by sex and tenure of farmers) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

1920: 7 counties, total (improved land per farm in acres; per cent improved) In Calif. Agr. exp. sta. Bul. 350, p.175 (1920 census)

1920-1850 (10 year periods): state. In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921,p.39.

1920,1910: state (classified by tenure of farmers) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.43.

Per Cent of Farm Land Improved

1910: state. In Farm management notes for Calif., p.13 (U.S. Census)

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

## FARM LAND - Continued

Per Cent of Farm Land Improved - Continued

1920,1910: state (total, and classified by size of farms) In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.41.

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical rept. 1920, p.28.

1920,1910: state (classified by tenure of farmers) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.43.

Per Cent of Land In Farms

1910: state. In Farm management notes for Calif., p.13 (U.S. Census)

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1912-1919.

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical rept. 1920, p.26,28.

Price See Value Per Acre

Unimproved Acreage in Farms

1860,1850: state. In Calif. State bd. agr. Rept. 1911, p.34 (Federal statistics)

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.366-367 (U. S. Census 1870)

1885: counties (fit for cultivation; unfit for cultivation - exclusive of town lots) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746, questions 2,3,4 (County assessors)

1900: Indian reservations. In Calif. State bd. agr. Repts. 1911, p.16; 1912,p.8.

1900-1850(10 year periods): state and county (acres unimproved) In Calif. State bd. agr. Rept. 1911, p.84-85.

1900,1890: state and county. In Calif. State bd. agr. Rept. 1912, p.75.

1910: state and county (woodland; other than woodland) In Calif. State bd. agr. Repts. 1912-1918.

1910: counties (woodland; other than woodland) In Calif. State bd. agr. Repts. 1911,1914-1918 (U. S. Census)

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1919: state (land in state occupied by Japanese) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.49 (Comp. by Japanese agr. assoc. of Calif.)

1920: state and county (woodland; other than woodland) In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.34-35, 44-54.

1920: counties (woodland; other than woodland) In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

## FARM LAND - Continued

### Value

1852: state (land incultivation) In Calif. census of 1852, p.8.

1900: Indian reservations (i.e. farm land?) In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1900: state (value of agricultural land compared with value of manufacturers' land; also expressed as per cent of total capital) In Calif. Com. on revenue and taxation, p.65 (U.S.Census)

1910,1900: state (increase and per cent of increase given in some cases) In Calif. State bd. agr. Repts. 1911-1918.

1910,1900: counties. In Calif. State bd. agr. Repts. 1911,1914-1918. (U.S. Census)

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U.S.Census)

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

### Value - Japanese

1912(Mar.): state (assessed value of farm land owned by Japanese) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.605. (Assessment rolls)

### Value Per Acre (Average)

1852: state (land in cultivation) In Calif. census of 1852, p.8.

1883(?): Stanislaus, Sonoma, Santa Cruz counties (maximum; minimum average price per acre of land exclusive of town lots) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, questions 6,7,8.

1885(?): counties - rept. from Washington and Eden townships, Alameda county (maximum; minimum; average price exclusive of town lots) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746 questions 6,7,8 (County assessors)

1895-1893(annual, Dec. 1): counties (average values, Dec. 1 of improved land) In Calif. state agr. soc. trans. 1895, p.112.

1900: Indian reservations (i.e. farm land?) In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1910: state (value per acre of each group of farms classified by size; for all farms) In Calif. Agr. exp. sta. Circ. 121, p.10 (U. S. Census)

1910-1850(10 year periods): state (with and without improvements) In Calif. State bd. agr. Rept. 1911, p.19.

1910,1900: state (with amount and per cent of increase over 1900 in some cases) In Calif. State bd. agr. Repts. 1911-1918.

1914: counties (highest and lowest assessed value per acre for irrigated and nonirrigated fruit, vine, hop, alfalfa and garden land) In Calif. State bd. equalization. Rept. 1913-1914, p.14-15.

## FARM LAND - Continued

Value Per Acre (Average) - Continued

1916,1915,1912: state, compared with U.S. (with improvements; without improvements) In Calif. State bd. agr. Statistical repts. 1915, p.29; 1916, p.11; 1917, p.13; 1918, p.15; 1919, p.15 (U.S.D.A.)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920,1910,1900: state. In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

1920-1916(annual): state, compared with U.S. (plow land - average for poor; average for good; average for all) In Calif. State bd. agr. Statistical repts. 1920, p.28; 1921, p.38 (Same statistics for shorter periods within 1916-1919 in Repts. 1919, p.16; 1918, p.16; 1917, p.13; 1916, p.11; 1915, p.29)

Value Per Farm (Average)

1910-1850(10 year periods): state (with improvements including buildings) In Calif. State bd. agr. Rept. 1911, p.19.

## ALMOND LAND

Value

1925: 10 districts; total (local estimates of value of land-orchards studied) In Calif. Agr. exp. sta. Bul. 422, p.25.

1926-1922(annual; 5 year aver.): state (farm value Dec. 1) In Calif. Dept. agr. Special pub. 74, p.18; in Calif. Dept. agr. Monthly bul. v.15, July-Dec. 1926, p.231.

Value Per Acre

1916-1913(information collected during this period): state and districts (average value of bare land; land in bearing orchards) In Calif. Agr. exp. sta. Bul. 297, p.49 (Indicates the more common values placed on land by almond growers)

1925: 10 districts (market price of open land suitable for almonds) In Calif. Agr. exp. sta. Bul. 422, p.25.

## GRAZING LAND

Acreage

1855: 4 counties (grazing acreage or acreage suitable for grazing) In Calif. Surveyor gen. Rept. 1855, p.253,269,299,320 (County assessors)

1859(?): state (aggregate of lands only fit for grazing purpose) In Calif. state agr. soc. Trans. 1859, p.362 (Sacramento Union and San Francisco Bulletin)

1861: El Dorado county (acres in grass also given) In Calif. Surveyor gen. Rept. 1862, p.106 (Assessor's rept.)

1883(?): Sonoma county. In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.113.

## GRAZING LAND - Continued

Acreage - Continued

1889(?): Humboldt county. In Calif. State bd. hort. Annual rept. 1889, p.481.

1893: Humboldt county. In Calif. state agr. soc. Trans. 1894, p.264.

Value Per Acre

1914: counties (highest and lowest assessed value per acre) In Calif. State bd. equalization. Rept. 1913-1914, p.14-15.

## HAY AND GRAIN LAND

Value Per Acre

1914: counties (highest and lowest assessed value per acre) In Calif. State bd. equalization. Rept. 1913-1914, p.14-15.

## ORCHARD LAND

Values

1895-1893(annual, Dec. 1): counties (average value of bearing and unbearing orchard land Dec. 1) In Calif. state agr. soc. Trans. 1895, p.112.

## PASTURE LAND

Acreage

1918: Los Angeles county. In Calif. State bd. agr. Statistical rept. 1918, p.359 (Los Angeles Chamber of commerce)

## WOODLAND

Woodland in Farms

1870(?): Calif.; other states; territories (percentage of forest land; percentage of forest land in farms; no. acres of woodland in farms; estimated total area in woodland) In Calif. state agr. soc. Trans. 1873, p.283-285 (Rept. of Comm. of agr. 1872)

## FARM LAND AND BUILDINGS

Value

1900,1890,1880,1870: Fresno county. In Calif. state agr. soc. Rept. 1909, p.63.

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1920: state (classified by sex of farmers) In Calif. State bd. agr. Statistical rept. 1920, p.57.

1920: state (classified by sex and tenure of farmers; by color and nativity of farmers) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

## FARM LAND AND BUILDINGS - Continued

Value - Continued

1920: state and county (classified by tenure of farmers) In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical repts. 1920, p.27 (per cent of increase 1870-1920, p.28); 1921, p.37 (With per cent increase 1870-1920, p.39)

1920,1910: state (total and classified by size of farms) In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.40.

1920, 1910: state (classified by tenure of farmers includes total value; and per cent of distribution by tenure) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.42.

Value Per Acre

1920-1850(10 year periods): state (average value) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

1920,1910: state (average value - total and classified by size of farms) In Calif. State bd. agr. Statistical repts. 1920, p.39; 1921, p.41.

1920,1910: state (classified by tenure - includes total average value) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.43.

Value Per Farm

1910: state (average) In Farm management notes for Calif., p.13. (U. S. Census)

1920: state (average value per farm - classified by sex and tenure of farmer) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

1920: state (average value per farm, classified by sex of farmers - includes total average value per farm) In Calif. State bd. agr. Statistical rept. 1920, p.57.

1920: state and county (average value) In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920-1850(10 year periods): state (average value) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

1920,1910: state (average value per farm - classified by tenure of farmers; includes total average value) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.43.

1920,1910: state (average value - total, and classified by size of farms) In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.41.

## FARM BUILDINGS

Cost of Material and Labor

Capital required for building equipment - dwellings, barns, hog houses, etc.; range of cost and average cost given, also proportion of labor to total cost. In Calif. Agr. exp. sta. Circ. 247 [June 1922], p.44. (These costs taken from actual buildings erected upon typical family-sized farms)

## FARM BUILDINGS - Continued

Number

1883(?): Stanislaus; Sonoma; Santa Cruz counties (sets of buildings exclusive of city or town bldgs.) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 28.

1885(?): counties - repts. from Washington and Eden townships Alameda county (sets of buildings exclusive of city or town buildings) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 28 (County assessors)

Value

1883(?): Stanislaus, Sonoma, Santa Cruz counties (sets of buildings exclusive of city or town buildings) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 29.

1885(?): counties - repts. from Washington and Eden Townships, Alameda county (sets of buildings exclusive of city or town buildings) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 29. (County assessors)

1900: state (farm buildings; per cent of total farm property) In Calif. Commission on revenue and taxation. Rept. 1906, p.63. (U. S. Census)

1900: state (value of agricultural buildings compared with value of manufacturers' buildings; also expressed as per cent of total capital) In Calif. Commission on revenue and taxation. Rept. 1906, p.65; in Calif. State comm. hort. Bien. rept. 1905-1906, p.333. (U.S. Census)

1900: Indian reservations. In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1910,1900: state. In Calif. State bd. agr. Repts. 1912-1918 (With per cent of increase over 1900)

1910,1900: counties. In Calif. State bd. agr. Repts. 1911,1914-1918 (U.S.Census)

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U.S.Census)

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

Value Per Acre

1920,1910,1900: state (average value) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

## FARM PROPERTY

Value

1900: state (assessed value of farms and farm equipment compared with assessed value of manufacturers' property; also expressed as per cent of total capital) In Calif. State comm. hort. Bien. rept. 1905-1906, p.333. (U.S.Census)

## FARM PROPERTY - Continued

Value - Continued

1900: state (land and improvements - buildings excluded; per cent of total farm property) In Calif. Comm. on revenue and taxation. Rept. 1906, p.63 (U.S.Census)

1900: Indian reservations. In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1911-1919.

1910,1900: state (with per cent of increase over 1900) In Calif. State bd. agr. Repts. 1912-1918.

1910,1900: counties (with per cent of increase) In Calif. State bd. agr. Repts. 1911,1914-1918 (U.S.Census)

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical repts. 1920, p.27 (with per cent of increase, 1870-1920, p.28); 1921, p.39.

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U.S.Census)

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

Value Per Acre

1920-1850(10 year periods): state (average) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

Value Per Farm

1910: state (average) In Farm management notes for Calif., p.13 (U.S.Census)

1910-1850(10 year periods): state (average) In Calif. State bd. agr. Rept. 1911, p.19.

1910,1900: state (average value; with per cent of increase over 1900) In Calif. State bd. agr. Repts. 1912-1918.

1920: state and county (average) In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920-1850(10 year periods): state (average) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

## FENCES

Cost Per Mile

1883(?): Stanislaus, Sonoma, Santa Cruz counties. In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 31.

1885(?): counties - repts. from Washington and Eden Townships, Alameda county. In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 31 (County assessors)

Number of Miles

1883(?): Stanislaus, Sonoma, Santa Cruz counties (approximate) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113, 120, question 30.

Numbers of Miles - Continued

1885(?): counties - repts. from Washington and Eden Townships, Alameda county. In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 30 (County assessors)

## FARMS

Capital Employed In Farming

1852: state (capital employed in stock, farming and gardening; in fruits and orchards) In Calif. census of 1852, p.7. Capital employed in livestock, agricultural products, land in cultivation, p.9.

1852: 5 counties. In Calif. census of 1852, p.15,30,32,38,51. Capital employed in gardening, 3 counties, p.30,32,54; capital invested in stock, 3 counties, p.31,32,35.

1900: state (total agricultural capital compared with capital of manufacturers; assets other than land, buildings and machinery; agricultural assets compared with assets of manufacturers; also expressed as per cent of total capital) In Calif. State comm. hort. Bien. rept. 1905-1906, p.333.

Cost of Developing

Cash requirements for purchasing and maintaining farms of different types (diversified farm; deciduous fruit; dairy and hog ranch; poultry farm) over a given period of years and under average conditions; gross capital needs to establish; gross returns after land is fully paid for; necessary needs after business is fully established and estimated market value for each type of farm. In Calif. Agr. exp. sta. Circ. 247, [June 1922], p.58-65 (Est. capital required for livestock other than work stock for a family-sized farm, p. 46)

Minimum first year expense of settler buying a 40-acre farm at a given cost. In Calif. Agr. exp. sta. Circ. 221 [Aug. 1920], p.24.

Outlay of settler under state and private purchase for first 2 years (includes outlay for 1st payment; 1st year payment (principal and interest) house; team; cows, pigs, chickens, farm implements; leveling 15 acres alfalfa; total) In Calif. State land settlement bd. Rept. 1918/20, p.55.

1919,1918,prewar (year of development): 6 typical Calif. farms (cost of equipment, livestock, and development (pre-war equivalent given) exclusive of price of land, also amount available for repayment of principal and interest 1914,1920,1925; size and types of farms) In Calif. Agr. exp. sta. Bul. 435, p.81. Charts showing amounts which would have been available for repayment of principal and interest from 1914-1925, had the prevailing prices in those years been paid and received for products bought and sold, p.82.

1921(June)-1925(Feb.): San Joaquin Valley (capital requirements for developing a 34-acre farm; including land, buildings, equipment, alfalfa, trees, vines, operating cash, etc.) In Calif. Agr. exp. sta. Bul. 435, p.67.

Cost of Developing - Continued

1922(?): average of 70 farms in typical irrigated areas (average cost of land; expense of development; cost of buildings and equipment; cost of preparing land for alfalfa; cost of preparing and planting orchards; cost of operation for the 1st year) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 5, p.10-11; in its introduction p.7-8.

1925: 1 30-acre farm (receipts from crops sold, cows, hogs, dairy products, poultry and eggs, turkeys and total; expenses include taxes, labor, household expenses, books and lodge dues, grain feed, etc., and total) In Calif. Agr. exp. sta. Bul. 435, p.76.

1925-1914(annual): 5 farms (charts showing: gross income expenses, and costs of development of a 30-acre irrigated Calif. dairy, hog and poultry farm and of a 12-acre irrigated general farm; gross income, expenses exclusive of interest and costs of development of a 59-acre dairy, fruit and grain farm; and gross income, expenses exclusive of interest, and costs of development of a 20-acre dairy farm and a 30-acre general farm) In Calif. Agr. exp. sta. Bul. 435, fig. 15-19, p.77-80.

Cost of Maintaining and Equipping an Experimental Farm

1911: Bakersfield high school, Kern county outline of estimated cost of equipping and maintaining an experimental farm for high school; actual expenditure to date and proposed outlay for next year; costs include land and buildings, pumping plant, farm tools, etc. In Calif. Agr. exp. sta. Circ. 67, p.13-14.

Number

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.366-367 (U.S.Census 1870)

1883(?): Calif.; individual states of U.S. (rank in number of farms) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.244.

1900: Indian reservations. In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1900,1890,1880: state and county. In Calif. State bd. agr. Rept. 1911, p.83 (1890 and 1900 also in Rept. 1912, p.75)

1905: counties (Alameda county gives also acreage in farms) In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

1906(tables headed 1905-06): counties. In Calif. state agr. soc. Rept. 1906 (See Contents under names of counties)

1907(tables headed 1906-07): counties. In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)

1908(tables headed 1907-08): counties. In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)

1909(tables headed 1908-09): counties. In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)

1910: state. In Calif. Agr. exp. sta. Circ. 121, p.10. (U.S.Census)

## FARMS - Continued

Number - Continued

1910: state and county. In Calif. State bd. agr. Repts. 1912-1918.

1910(tables headed 1909-10): counties. In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)

1910-1850(10 year periods): state. In Calif. State bd. agr. Repts. 1912-1919.

1910,1900: state. In Calif. State bd. agr. Repts. 1911-1918 (Amount and per cent of increase are given in some cases)

1920: 7 counties, total (all farms) In Calif. Agr. exp. sta. Bul. 350, p.175.

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical repts. 1920, p.26 (with per cent of increase 1870-1920, p.28); 1921, p.37,38.

1920,1910: state. In Farm management notes for Calif. p.13; in Calif. State bd. agr. Statistical repts. 1920, p.29; 1921,p.40 (U.S.Census)

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921.

1920,1910,1900: state and county. In Farm management notes for Calif., p.14-15; in Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54 (U.S.Census)

Number (Classified by Color and Nativity of Farmers)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

1920,1910: state (colored farmers classified by race) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Number (Classified by Sex of Farmers)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

Number (Classified by Sex and Tenure of Farmers)

1920: state. In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Number (Classified by Size)

1872: state and county (farms containing 100 acres and more) In Calif. State bd. equalization. Rept. 1872-1873, p.22-23 (Assessors' reports)

1900,1890,1880,1870: Fresno county. In Calif. state agr. soc. Rept. 1909, p.62.

1910: state. In Farm management notes for Calif., p.15; in Calif. Agr. exp. sta. Circ. 121, p.10 (U.S.Census)

1910: state and county (total and classified by size) In Calif. State bd. agr. Repts. 1912-1918.

1910: counties. In Calif. State bd. agr. Repts. 1911,1914-1918.

1910-1850(10 year periods): state - total and by size of farms. In Calif. State bd. agr. Repts. 1911-1919 (1850 figure not classified by size)

Number (Classified by Size) - Continued

1910,1900: state (total and classified by size of farms; with increase or decrease in amount and per cent over 1900) In Calif. State bd. agr. Repts. 1912-1918.

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

1920-1880(10 year periods): state (total, and classified by size, with per cent distribution of all farms by size) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.40.

1920,1910: state (total and classified by size, with number and per cent of increase and per cent of total) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.40.

Number (Classified by Tenure of Farmers)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

1920-1880(10 year periods): state (includes per cent distribution of all farms by tenure) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.42.

1920,1910: state (includes increase in number and per cent; and per cent of total) In Calif. State bd. agr. Statistical repts. 1920, p.30; 1921, p.41.

1920,1910,1900: state and county (degree of ownership given for farms operated by owners; per cent of all farms, 1920) In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

Number (Classified by Tenure, and by Color and Nativity of Farmers)

1920: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

Number Operated by Whites

1909(?): farms visited in farm labor investigation (classified by kinds of labor) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, table I, p.265.

1909(?): farms visited in farm labor investigation (no. and per cent of farms employing white labor only; white and Japanese; total farms classified according to size of farm) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, table II, p.265.

1909(?): farms visited in farm labor investigation (no. and percentage of farms employing white labor only; white and Japanese; total farms classified according to principal crop grown) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.266.

Number Owned

1924: 5 irrigation districts; 5 reclamation districts; drainage district no. 100 (classified according to size in acres; total; area in acres, average size in acres) In Calif. Agr. exp. sta. Bul. 435, p.56 (Comp. from assessment rolls)

## FARMS - Continued

Number Owned - Continued

1925-1910(annual): Southern San Joaquin irrigation district (classified according to size in acres; total ownerships, total acreage and aver. size of farm) In Calif. Agr. exp. sta. Bul. 435, p.55.

Number Owned or Operated by Japanese

1909(?): farms visited in farm labor investigation (classified by tenure - owners; cash lessees; share lessees) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910;table I, p.265.

1909(?): farms visited in farm labor investigation (no. and per cent of farms operated by cash lessees; share lessees; total farms classified according to size of farms) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.266.

1912: state and county (owned by Japanese) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Bur. labor statistics)

1918(?): 6 districts and total; Southern Calif.; grand total (number under Japanese management ownership; tenant; contract; total) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.222.

Size

1900,1890,1880: state, county (average size in acres) In Calif. State bd. agr. Rept. 1911, p.83.

1910: state (average) In Farm management notes for Calif., p.13; in Calif. Agr. exp. sta. Circ. 121, p.10 (U.S.Census)

1910: state and county (average acreage per farm) In Calif. State bd. agr. Repts. 1912-1918.

1910-1850(10 year periods): state (average acreage per farm) In Calif. State bd. agr. Repts. 1911-1919.

1910,1900: state (average acreage per farm; with per cent of decrease over 1900) In Calif. State bd. agr. Repts. 1912-1918.

1920: state,county (average acreage per farm) In Calif. State bd. agr. Statistical repts. 1920, p.32-42; 1921, p.44-54.

1920: 7 counties, total (average size in acres) In Calif. Agr. exp. sta. Bul. 350, p.175 (1920 Census)

1920-1850(10 year periods): state (average acreage of all land per farm) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

Size (Classified by Sex and Tenure of Farmers)

1920: state (average acreage per farm) In Calif. State bd. agr. Statistical repts. 1920, p.57; 1921, p.68.

Size (Classified by Tenure of Farmers)

1920,1910: state (all land) In Calif. State bd. agr. Statistical repts. 1920, p.31; 1921, p.43.

## FARMS - Continued

### Size of Farms in Relation to Income

Table showing the area required to produce a gross income of $4000. per year, assuming the average price stated. Area given for 27 different crops. In Calif. Agr. exp. sta. Circ. 121, [Oct. 1914], p.8; reprinted in Calif. State bd. agr. Statistical rept. 1915, p.96.

### Value

1860,1850: state (cash value) In Calif. State bd. agr. Rept. 1911, p.34 (Federal census)

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.366-367 (U.S. census 1870)

1883(?): Calif. and individual states of U. S. (rank in aggregate value of farms) In Calif. Bur. labor statistics, 1883-84, p.244.

1912: state and county (total assessed value of farms owned by Japanese) In Calif. State bd. agr. Repts. 1912-1918.

1912,1909: state (total assessed value of farms owned by Japanese) In Calif. State bd. agr. Repts. 1912-1918.

1920-1850(10 year periods): state (total value) In Calif. State bd. agr. Statistical rept. 1921, p.37.

### Value Per Acre

1910: state (average; high; low) In Farm management notes for Calif., p.13 (U. S. Census)

### Miscellaneous

A pro rata method for determining income that tenant and landlord are entitled to. Takes into account all items covering investment operating and overhead with values affixed. In Calif. Agr. exp. sta. Circ. 272 [Nov. 1923], p.47-48.

## DAIRY FARMS

### Cost of Developing

1915(?): Contra Costa county, San Joaquin valley; Chowchilla ranch (estimated cost of a ready-made 40 acre farm in 3 given localities) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.25-27.

1925: one 83-acre dairy farm (expense of operating a dairy farm - itemized expenses - taxes, labor, feed, auto expense, food, clothes, doctor bills) In Calif. Agr. exp. sta. Bul. 435, p.72.

1925-1914(annual): 1 83-acre irrigated farm (chart showing gross income, expenses exclusive of interest, and costs of development) In Calif. Agr. exp. sta. Bul. 435, fig. 14, p.74.

1926-1924(Jan.; annual), 1918 (May): one 83-acre farm (financial statement showing progress of a dairy farm - itemized assets; liabilities and net worth. Shown under conditions of high cost of land and water) In Calif. Agr. exp. sta. Bul. 435, p.75.

## POULTRY FARMS

Number

1905: 10 counties. In Calif. state agr. soc. Rept. 1905, p.86,90, 118,132,155,187,217,222,246,267.

## RANCHES

Number

1883(?): Stanislaus; Sonoma; Santa Cruz counties (no. in county; number worked by owners; number worked in shares; number rented) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106, 113,120 questions 9,21-24.

1885(?): counties - repts. from Washington and Eden Townships, Alameda county (number; number worked by owners; number worked in shares; number rented) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746 questions 9,21-24 (County assessors)

Rent Per Acre

1883(?): Stanislaus; Sonoma; Santa Cruz counties (minimum; maximum; average rent) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, questions 25,26,27.

1885(?): counties - repts. from Washington and Eden Townships, Alameda county (maximum; minimum rent; average rent) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, questions 25,26,27 (County assessors)

## IMPLEMENTS AND MACHINERY

Cost

Costs of selected items of minor equipment - harness, wheelbarrows, shovels, fruit spraying outfits, etc., for a typical family-sized farm. In Calif. Agr. exp. sta. Circ. 247 [June 1922], p.47 (Based on average of pre-war and post-war prices.)

Estimated capital required for implements and machinery for a typical family-sized farm (itemized costs) In Calif. Agr. exp. sta. Circ. 247, [June 1922], p.45 (Values based on averages of pre-war and post-war figures)

Proportion of total capital invested in equipment for grain; dairying; and fruit farms. Number of records studied; average size of farm and location given. In Calif. Agr. exp. sta. Rept. 1919/20, p.80.

Retail cost of some articles needed in equiping a farm. In Calif. Agr. exp. sta. Circ. 221 [Aug. 1920], p.24-26. (Prices from a merchant at Turlock)

1852: state (capital employed in farming utensils) In Calif. census of 1852, p.7.

## IMPLEMENTS AND MACHINERY - Continued

### Freight Rates

1892: comparative statement of rates on numerous kinds of agricultural implements from San Francisco to points on the Southern Pacific Co.'s line in Calif. and points in Nebraska on the B.&M. R. R. in Nebraska - like distances from Omaha. In Calif. Bd. R.R. commissioners. Annual rept. 1892, p.68-71 (Letter of submittal dated Apr. 4, 1892)

1892: comparative statement of rates on various kinds of agricultural implements from Fresno to points on the Southern Pacific Co.'s lines in Calif., and points in Kans. on the Missouri Pacific Co.'s lines, like distances from Wichita. In Calif. Bd. R. R. commissioners. Annual rept. 1892, p. 73-82 (Letter of submittal dated May 16, 1892)

1892: comparative statement of rates on various kinds of agricultural implements from Sacramento to points on the Southern Pacific Co.'s lines in Calif., and points in Minn. on the Northern Pacific R. R. Co.'s lines, distances from St. Paul. In Calif. Bd. R. R. commissioners. Annual rept. 1892, p.83-90 (Letter of submittal dated June 6)

1892: comparison of rates charged by Calif. railroads, Southern Pacific Co. stations, from and to San Francisco. In Calif. Bd. R. R. commissioners. Annual rept. 1892, schedule "D", folded charts following p.364 (Letter dated Nov. 14)

### Imports (Quantity and Value)

1915(year ended June 30): Port of Los Angeles (domestic commerce-inbound) In Los Angeles. Bd. harbor commissioners. Annual rept. 1914/15, p.53.

1916(year ended June 30): Port of Los Angeles (inbound domestic commerce) In Los Angeles. Bd. harbor commissioners. Annual rept. 1915/16, p.255.

1917(year ended June 30): Port of Los Angeles (inbound domestic commerce) In Los Angeles. Bd. labor commissioners. Annual rept. 1916-18, p.40.

### Number and Power

1883(?): Stanislaus, Santa Cruz counties (labor-saving agricultural implements) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,120, questions 33,35.

1885(?): counties, Alameda county gives repts. from Washington and Eden Townships (labor-saving agricultural implements) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 33 (County assessors)

### Ranch Cultivators Using Labor Saving Machines

1883(?): Stanislaus, Sonoma, Santa Cruz counties. In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 36.

Ranch Cultivators Using Labor Saving Machines - Continued

1885(?): counties, Alameda county gives reports from Washington and Eden Townships. In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, question 36 (County assessors)

Shipments

1888: 4 Calif. railroads (freight traffic movement; per cent of total sometimes given) In Calif. Bd. R. R. commissioners. Rept. 1889, appendix, p.38,80,162,210.

1890: freight traffic movement over Calif. railroads. In Calif. Bd. R. R. commissioners. Annual rept. 1891, p.110,156,166,198,210,248, 267.

1891: freight traffic movement over railroads within the state. In Calif. Bd. R. R. commissioners. Annual rept. 1892, p.182,225,234, 272,293,319.

1892: Pacific Coast R. R. Co., Nevada-Calif.-Oregon R. R. Co. (freight traffic movement; per cent of total) In Calif. Bd. R. R. commissioners. Rept. 1893-94, [appendix], p.99,123.

1892(year ended Dec. 31),1893(6-months ended June 30): various Calif. railroad companies freight traffic movement (sometimes expressed as per cent also) In Calif. Bd. R. R. commissioners. Rept. 1893-94, [appendix], p.63-64,79-80,108-109,200-201.

1893(18-month period ended June 30): South Pacific R.R. Co. (freight traffic movement; per cent of total) In Calif. Bd. R. R. commissioners. Rept. 1893-94, [appendix], p.14.

1894(year ended June 30): 7 Calif. railroads (freight traffic movement; per cent of total sometimes given also) In Calif. Bd. R. R. commissioners. Rept. 1893-94, [appendix], p.219-379.

1895: Pacific Coast R. R. Co., Southern Pacific R. R. Co. (freight traffic movement; per cent of total) In Calif. Bd. R. R. commissioners. Rept. 1895-96, p.210,349. (Southern Pacific Co. year ended June 30)

1896(year ended June 30): various Calif. railroads (freight traffic movement; per cent of total usually given) In Calif. Bd. R. R. commissioners. Rept. 1895-96, p.103-302.

1900(year ended June 30): various Calif. railroads (freight traffic movement; per cent of total) In Calif. Bd. R. R. commissioners. Rept. 1900, p.80-212.

1907/08: various Calif. railroads (movement of freight) In Calif. Bd. R. R. commissioners. Rept. 1908, p.44-46.

1910,1909(years ended June 30): various Calif. railroads, total (movement of freight) In Calif. Bd. R. R. commissioners. Rept. 1909/10, p.190-200,269-281.

1911(year ended June 30): moved over given Calif. railroads, total shipments. In Calif. Railroad commission. Rept. Jan. 1911 - June 1912, p.316-327.

1912(year ended June 30): moved over given Calif. railroads, total shipments. In Calif. Railroad commission. Rept. 1912/13, p.1100-1111.

### Shipments - Continued

1913(year ended June 30): moved over given Calif. railroads; total shipments. In Calif. Railroad commission. Rept. 1913/14, p.674-683.
1914(year ended June 30): moved over given Calif. railroads; total shipments. In Calif. Railroad commission. Rept. 1914/15, p.452-461.
1915(year ended June 30): freight carried by various railroads operating in Calif., total. In Calif. Bd. R. R. commissioners. Rept. 1915/16, v.2, p.130-141.
1916(year ended June 30): moved over given Calif. railroads; total shipments. In Calif. Railroad commission. Rept. 1916/17, v.2, p.132-135.
1916(year ended June 30): Port of Los Angeles (outbound domestic commerce) In Los Angeles. Bd. harbor commissioners. Annual repts. 1915/16, p.258.
1917(year ended June 30): Port of Los Angeles (outbound to Hawaii) In Los Angeles. Bd. harbor commissioners. Annual repts. 1916-18, p.51.

### Value

1852: Sonoma county (farming implements) In Calif. census of 1852, p.49.
1870: state and county. In Calif. state agr. soc. Trans. 1871, p. 366-7 (U. S. Census)
1873,1872: state and county (value of farming implements assessed) In Calif. State bd. equalization. Rept. 1872-1873, p.36-37,52-53.
1875,1874(both tables dated 1875): state and county (assessed value) In Calif. State bd. equalization. Rept. 1874-75, p.22-23,50-51.
1877,1876: state and county (farming utensils - assessed value) In Calif. State bd. equalization. Bien. rept. 1876-77, p.28-29,48-49.
1879,1878: state and county (farming utensils - assessed value) In Calif. State bd. equalization. Bien. rept. 1878-79, p.28-29,48-49.
1880: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1880, p.104-105.
1882: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1881 and 1882, p.92-93.
1883: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1883 and 1884, p.71.
1883(?): Stanislaus; Sonoma; Santa Cruz counties (value all implements in county) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 32.
1883(?): Stanislaus; Sonoma; Santa Cruz counties (value of labor-saving agricultural implements) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 34.
1884: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1883 and 1884, p.99.

Value - Continued

1885(?): counties - repts.. from Washington and Eden Townships, Alameda county (value all implements; value all labor-saving implements) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, questions 32,34 (County assessors)

1886: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1885 and 1886, p.68.

1887: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1887 and 1888, p.67.

1888: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1887 and 1888, p.87.

1889: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1889 and 1890, p.49.

1889/90: San Francisco city and county. In Calif. State bd. equalization. Rept. 1889 and 1890, p.87.

1890: state and county (farming utensils reported by assessors) In Calif. State bd. equalization Rept. 1889 and 1890, p.68.

1891: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1891 and 1892, p.49.

1891/92: San Francisco city and county. In Calif. State bd. equalization. Rept. 1891 and 1892, p.96.

1892: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1891 and 1892, p.77.

1893: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1893 and 1894, p.61.

1893/94: San Francisco city and county. In Calif. State bd. equalization. Rept. 1893 and 1894, p.110.

1894: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1893 and 1894, p.91.

1895: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1895 and 1896, p.31.

1895/96: San Francisco city and county. In Calif. State bd. equalization. Rept. 1895 and 1896, p.90.

1896: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1895 and 1896, p.74.

1897: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.30.

1897/98: San Francisco city and county. In Calif. State bd. equalization. Rept. 1897 and 1898, p.91.

1898: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.71.

1900: state (value of agricultural machinery, etc. compared with value of manufacturers' machinery, also expressed as per cent of total capital) In Calif. State comm. hort. Bien. rept. 1905-1906, p.333; in Calif. Commission on revenue and taxation. Rept. 1906, p.65 (U. S. Census)

1900: state (per cent of total farm property also given) In Calif. Commission on revenue and taxation. Rept. 1906, p.63. (U. S. Census)

## IMPLEMENTS AND MACHINERY - Continued

Value - Continued

1900: Indian reservations (implements) In Calif. State bd. agr. Repts. 1911, p.16; 1912, p.8.

1902: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1899-1902, p.66.

1904: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1903-1904, p.41.

1906: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1905-1906, p.64.

1906(table headed 1905-06): Alameda county. In Calif. state agr. soc. Rept. 1906, p.60.

1907(table headed 1906-07): Yolo county (value of farm implements manufactured) In Calif. state agr. soc. Rept. 1907, p.212.

1908: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1907-1908, p.80.

1908(table headed 1907-08): San Joaquin county (value of machinery - farm and traction); Yolo county (value of farm machinery) In Calif. state agr. soc. Rept. 1908, p.160,216.

1910: state and county (farming utensils reported by assessors) In Calif. State bd. equalization. Rept. 1909-1910, p.81.

1910-1850(10 year periods): state (implements and machinery on farms) In Calif. State bd. agr. Repts. 1911-1919 (1850 and 1860 also on p.34 of 1911 Rept.)

1910,1900: state (with increased per cent over 1900) In Calif. State bd. agr. Repts. 1912-1918.

1910,1900: counties. In Calif. State bd. agr. Repts. 1911,1914-1918 (U. S. Census)

1914: state (includes value and value added by manufacture) In Calif. State bd. agr. Statistical rept. 1917, p.266 (U. S. Census)

1920-1850(10 year periods): state. In Calif. State bd. agr. Statistical rept. 1920, p.27 (per cent of increase, 1870-1920,p.28); in Rept. 1921, p.37 (With per cent of increase 1870-1920,p.39)

1920,1910: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

1920,1910,1900: state and county. In Calif. State bd. agr. Statistical repts. 1920, p.33-43; 1921, p.45-55.

Value of Shipments

1916(year ended June 30): Port of Los Angeles (outbound domestic commerce) In Los Angeles. Bd. harbor commissioners. Annual rept. 1915/16, p.258.

1917(year ended June 30): Port of Los Angeles (outbound to Hawaii) In Los Angeles. Bd. harbor commissioners. Annual repts. 1916-18, p.51.

1920(Jan.-June): Port of Los Angeles to Guatemala and Mexico (other than planters, seeders, plows and cultivators); Port of Los Angeles to Japan (other than planters and cultivators) In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.115,125,122.

Value of Shipments - Continued

1920(Jan.-June): Port of Los Angeles to Guatemala, Mexico, Salvador (parts) In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.115,125,141.

Value Per Acre

1910-1850(10 year periods): state (average value) In Calif. State bd. agr. Rept. 1911, p.19.

1920-1850(10 year periods): state(average value) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

Value Per Farm

1910: state (average) In Farm management notes for Calif., p.13 (U. S. Census)

1910-1850(10 years periods): state (average value) In Calif. State bd. agr. Rept. 1911, p.19.

1920-1850(10 years periods): state (average value) In Calif. State bd. agr. Statistical repts. 1920, p.29; 1921, p.39.

## EVAPORATORS

Cost

Cost of operating University farm evaporator for one season. In Calif. Agr. exp. sta. Bul. 322, p.441.

Estimated cost of constructing a 9 tunnel evaporator for drying prunes. Itemized costs given. In Calif. Agr. exp. sta. Circ. 213 [May 1919], p.9-10.

List of materials and estimate of cost of evaporator and equipment for drying grapes. In Calif. State bd. viticultural comm. Bul. 15, 1919, p.25-26.

List of materials and cost of construction of evaporator as used in 1919. Constructed at University farm for purpose of conducting investigations in the drying of grapes and other fruits. In Calif. Agr. exp. sta. Bul. 322, p.428-430.

## GRAIN CUTTERS

Number

1852: Sonoma county. In Calif. census of 1852, p.49.

## GRAIN DERRICKS

Freight Rates

1878: statement E showing reduced rates on grain derricks over Southern Pacific R. R., Northern Division. In Calif. Commissioner of transportation. Rept. 1877-1878, p.23.

## HAY PRESSES

Value

1897: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.32.

1898: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.30.

1902: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1899-1902, p.71.

1904: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1903-1904, p.45.

1906: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1905-1906, p.70.

1908: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1907-1908, p.86.

1910: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1909-1910, p.87.

## PLANTERS AND SEEDERS

Shipments (Quantity and Value)

1920(Jan.-June): Port of Los Angeles to Guatemala, Mexico (value only) In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.115,125.

## PLOWS AND CULTIVATORS

Freight Rates

1892: comparative tables showing differences of rates on plow-points between Southern Pacific and Chicago and Alton, and Southern Pacific and Union Pacific between practically equi-distant points. In Calif. Bd. R. R. commissioners. Annual rept. 1892, p.107,135. (letters dated May 30 and July 14)

Shipments

1920(Jan.-June): Port of Los Angeles to Guatemala. In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.115.

Value

1908(table headed 1907-08): San Joaquin county (plows manufactured) In Calif. state agr. soc. Rept. 1908, p.160.

Value of Shipments

1920(Jan.-June): Port of Los Angeles to Guatemala, Japan, Mexico, Philippines, and Salvador. In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.115,123,125,139,141.

## REFRIGERATION MACHINE

Cost of Energy for Driving a Dairy Refrigeration Machine

Cost per year at 200 lbs. pressure; at 150 lbs. pressure; saving per year by operating 150 pounds head-pressure. In Calif. Agr. exp. sta. Bul. 433, [Sept.1927], p.7.

## SICKLES

### Value of Imports

1920(Jan.-June): Port of Los Angeles from Japan. In Los Angeles. Bd. harbor commissioners. Annual repts. 1918-20, p.95.

## SEPARATORS

### Freight Rates

1878: statement E showing reduced rates on separators over Southern Pacific R. R., Northern Division. In Calif. Commissioner of transportation. Rept. 1877-1878, p.23.

## SILOS

### Capacity

Capacities of cylindrical silos of a given diameter and height. In Calif. Agr. exp. sta. Circ. 138 [Sept. 1915], p.7.

## SPRAY PLANTS

### Cost

Cost of installation and up-keep (owner's figures) of stationary spray plants per acre. In Calif. Agr. exp.sta. Bul. 406, [Oct.1926] p.27.

## THRESHING MACHINES

### Number

1852: Sonoma county. In Calif. census of 1852, p.49.

## TRACTORS

### Cost of Farm Power

Approximate cost per hour and total annual cost of horse and mule power and tractor power (by type of power) used on farms. In Calif. Agr. exp. sta. Bul. 415, [Dec.1926], p.20.

Comparative cost of doing 10,000 horsepower hours of field work with tractors of various sizes. In Calif. Agr. exp. sta. Bul. 415 [Dec.1926], p.29.

1926: approximate cost of animal and tractor power in Calif. In Calif. Agr. exp. sta. Bul. 415, p.23,24, table and chart.

### Life of Tractors

Data from 465 questionnaires (estimated life of tractor as influenced by annual use) In Calif. Agr. exp. sta. Bul. 415, [Dec. 1926], p.27, chart p.28.

## WINE PRESSES

### Value

1897: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.32.

1898: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1897 and 1898, p.80.

1902: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1899-1902, p.71.

1904: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1903-1904, p.45.

1906: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1905-1906, p.70.

1908: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1907-1908, p.86.

1910: state and county (reported by assessors) In Calif. State bd. equalization. Rept. 1909-1910, p.87.

## WAREHOUSES

### Number

1926(Jan.1;Dec.31): state (total no. and total capacity of bonded warehouses for dried fruit, grain, canned goods and olive oil.) In Calif. Dept. agr. Monthly bul. v.15, July-Dec. 1926, p.157.

1927(Jan.1;Dec.31): state (total no. and total capacity of bonded warehouses for dried fruit, grain, canned goods, olive oil, and nuts) In Calif. Dept. agr. Monthly bul. v.16, Dec. 1927, p.624.

1927,1926(monthly): state (no. of bonded warehouses) In Calif. Dept. agr. Monthly bul. v.16, Dec. 1927, p.624.

## MORTGAGE DEBT

### Amount of Mortgage Debt

1910: state and county (farms consisting of owned land only operated by owners) In Calif. State bd. agr. Repts. 1912-1918.

### Number of Farms Free From Mortgage Debt

1910: state and county (farms operated by owners; also number for which no mortgage reports were secured) In Calif. State bd. agr. Repts. 1912-1918.

### Number of Farms Reporting Mortgage Debt

1910: state and county (farms operated by owners; farms consisting of owned land only operated by owners) In Calif. State bd. agr. Repts. 1912-1918.

### Per Cent of Value of Land and Buildings

1910: state and county (farms consisting of owned land only operated by owners) In Calif. State bd. agr. Repts. 1912-1918.

Value of Land and Buildings on Farms Reporting Mortgage Debt

1910: state and county (farms consisting of owned land only operated by owners) In Calif. State bd. agr. Repts. 1912-1913.

## TAXES

Miscellaneous Data

Average country or rural rates (state, county, road, total) compared with city rates (state, county, city, total) In Calif. Comm. on revenue and taxation. Rept. 1906, p.67.

1855: Placer county (state and county tax paid on improvements and stock on improved ranches in county) In Calif. Surveyor gen. Rept. 1855, p.233 (County assessor)

1885(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1884-1886, p.134-186.

1887: counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1887-1888, p.146-198.

1889: counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1889-1890, p.138-190.

1891(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1891-1892, p.150-186.

1893(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1893-1894, p.152-188.

1895(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1895-1896, p.160-198.

1897(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1897-1898, p.144-181.

1899(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1899-1900, p.152-184.

1900: state (agricultural taxes compared with taxes of manufacturers; expressed as percent of total capital) In Calif. State comm. hort. Bien. rept. 1905-1906, p.333; in Calif. Commission on revenue and taxation. Rept. 1906, p.66 (U. S. Census)

1900: state (comparison of taxes on farms and taxes on manufactures; table gives total capital, value and per cent of total value of land, buildings, machinery, other assets, assessed value, taxes, gross product, net product, taxes of gross product, and taxes of net product) In Calif. Commission on revenue and taxation. Rept. 1906, p.65-66. (Mainly from U. S. Census)

1900(?): state (percentages of taxes paid by different classes of corporations, by farmers; per cent of taxes to gross earnings for different corporations; for farmers) In Calif. State comm. hort. Bien. rept. 1905-1906, p.334.

1901(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1901-1902, p.144-177.

1903(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1903-1904, p.156-188.

1905(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1905-1906, p. 152-188.

## TAXES - Continued

Miscellaneous Data - Continued

1907(?): counties (state, county, total) tax rate. In Calif. State controller. Bien. rept. 1907-1908, p.193-231.

1912(?): counties (tax rate on forest taxation; estimated per cent of total amount of county tax derived from timber lands) In Calif. State conservation comm. Rept. 1912, p.491.

1916,1912: counties (tax rate outside incorporated cities for 1912 compared with 1916 rate) In Calif. State tax commission. Rept. 1915/16, p.254.

1922: Delhi, Merced county (average taxes per acre) In Calif. Dept. public works. Div. land settlement. Farming in Merced county, Calif. p.4.

1925-1917(semi-annually), 1916: In a Calif. irrigation district (total taxes, taxes and imputed interest paid by non-irrigated lands; per acre assessments levied, assessment plus imputed interest) In Calif. Agr. exp. sta. Bul. 435, p.54.

1926-1888,1926-1910,1925-1910 (date of organization to Jan. 1, 1926): 4 irrigation districts of Calif. (taxes; interest on taxes; total for unimproved grain land per acre) In Calif. Agr. exp. sta. Bul. 435, p.51. (Table 9, p.52 shows total cost (per acre) to grain lands for irrigation system; for district taxes and interest; for average bonded debt and gives assessed value; it also shows mean assessed value of land and average bonded debt)

## POPULATION

Urban and Rural

1920,1910,1900: state (classified by color or race, nativity, parentage and sex - per cent of total given, also number of males to 100 females) In Calif. State bd. agr. Statistical rept. 1921, p.67.

1920,1910,1900: state (classified by places of a given size - number of places given also) In Calif. State bd. agr. Statistical rept. 1921, p.66.

1920,1910,1900: state and county (per cent urban in total population and per cent increase in rural population; urban population) In Calif. State bd. agr. Statistical rept. 1921, p.64-65.

## FARMERS

Number

1883(?): state (stockraisers, drovers, and herders; gardeners, nurserymen and vinegrowers; farmers and planters - classified by age, sex, nativity) In Calif. Bur. labor statistics 1st. Bien. Rept. 1883-84, p.224.

1889/90: Sonoma, Lake, Mendocino, Marin counties and total for all counties (number of vine growers) In Calif. Bd. state viticultural commissioners. Annual rept. 1889/90, p.44 (Only vine growers having 5 acres or more are listed)

## FARMERS - Continued

### Number - Continued

1890(?): 4 counties and total (number of vine growers) In Calif. Bd. state viticultural commissioners. Rept. 1890/92, p.45.

1910: state and county (native white; foreign-born white; negro and other non-white; total number of farmers) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

1920,1910: state (classified by tenure, color and nativity) In Calif. State bd. agr. Statistical repts. 1920, p.58; 1921, p.69.

### Number of Ranch Owners

1883(?): Stanislaus, Sonoma, Santa Cruz counties. In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.106,113,120, question 10 (Classified by size of ranches, questions 11-20)

1885(?): counties - repts. from Washington and Eden Townships, Alameda county (total no. owning ranches; no. owning ranches classified by size) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.645-746, question 11-20 (County assessors)

### Number of Voters Registered as Farmers, Etc.

1886: San Francisco city (farmers; florists; gardeners; viticulturists; wine dressers) In Calif. Bur. labor statistics. 3d Bien. rept. 1887-88, p.207,209.

## LABOR

### Cost of Board and Lodging in Labor Camps

1916,1915(July 1 to Jan.1): 663 labor camps (cost of board per meal; of lodging per month in beet, fruit, grape, hop and ranch camps) In Calif. Comm. immigration and housing. 2d Annual rept. 1915, p.381-384.

### Expenditures for Labor

1910,1900: state. In Calif. State bd. agr. Rept. 1911, p.19.

### Farm Labor Supply and Demand

1922-1920(annual): state; U.S. (per cent of normal; per cent of supply to demand) In Calif. crop and livestock rept. Apr. 8, 1922.

1923-1921(annual): state; U.S. (per cent of normal; supply expressed as per cent of demand) In Calif. crop and livestock rept. Apr. 9, 1923.

1924-1922(annual): state; U.S. (per cent of normal; supply expressed as per cent of demand) In Calif. crop and livestock rept. Apr. 10, 1924.

### Number Engaged in Agriculture Who Are Unemployed Part Time

1903(?): Calif., U.S. (number persons 10 years of age and over classified by sex and length of time unemployed; number unemployed part of the year) In Calif. Bur. labor statistics. 11th Bien. rept. 1903-1904, p.94.

LABOR - Continued

Number of Agricultural Laborers

1883(?): state (number of agricultural laborers; number persons engaged in agriculture - classified by age; sex; nativity) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.224.

1883(?): Stanislaus, Sonoma, Santa Cruz counties ( number laborers employed in agriculture; number and range of ages) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.107,113,121, questions 37,38,39.

1883(?): Stanislaus, Sonoma, Santa Cruz counties (total number; no. by sex - gardeners and florists) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.111,117,127.

1885(?): counties (number and range of ages) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, questions 37,38,39.

1890: Calif. (counties); Arizona, New Mexico. (no. laborers employed in vineyards) In Calif. state agr. soc. Trans. 1890, p.386-387. (data for Calif., certain other states, U.S. given on p.388 (U.S. Census Bulletin)

1899; state (no. whites, Mexicans, Chinese, Japanese employed in sugar beet fields; no whites, Mexicans in sugar beet factories) In Calif. Bur. labor statistics. 9th Bien. rept. 1899-1900, p.29.

1899: state (approximate no. of laborers classified by nationality employed in picking, packing, canning, drying, in fruit and raisin industry) In Calif. Bur. labor statistics. 9th Bien. rept. 1899-1900, p.29.

1900: state and U.S. (no. and per cent of children 10 to 15 years - classified by sex-engaged in agricultural pursuits) In Calif. Bur. labor statistics. 11th Bien. rept. 1903-1904, p.90 (State only, p.91)

1900,1890,1880: state and U.S. (no. and per cent of persons - also per cent of male and female - engaged in agricultural pursuits) In Calif. Bur. labor statistics. 11th Bien. rept. 1903-1904, p.83, 85.

1901: San Francisco county and city (no. employed (adults, minors, etc.) in dairies, as florists, workers) In Calif. Bur. labor statistics. 10th Bien. rept. 1901-1902, p.42.

1905(?): San Francisco city (no. adults; no. minors; etc.) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.166.

1906: state and sections of state (number of persons employed - temporary, permanent - and condition of agricultural labor) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.73.

1906(subsequent to Apr. 18 and prior to Sept. 1): leading cities of Calif. (no. persons employed as buttermakers) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.90,91.

1907(?): San Francisco (no. adults; no. minors; etc. employed in dairies) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.92.

1907/08(fiscal year): San Francisco, Los Angeles, San Jose, smaller towns (dairy employees, buttermakers, helpers) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.26,29,34,53,58,69,76.

Number of Agricultural Laborers - Continued

1907/08: San Francisco (total no. of gardeners furnished positions through employment agencies; no. in San Francisco; outside of San Francisco) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, table following p.150.

1907/08: state and sections of state (number of persons employed- permanent, temporary - and condition of agricultural labor) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.119.

1909(?): state and county (number laborers employed by white farmers classified by race and sex; total acreage and number of farms given also) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.268,269. (Classified by race and sex and by principal crops grown, p.270)

1909/10: San Francisco, Los Angeles, Oakland, Sacramento and numerous small towns (no. buttermakers, creamery hands, milkers, dairy employees, nurserymen) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.138,151,160,163,169,172,178,203. (All data not given for all towns and on all pages)

1914(between Apr. 10 and Nov. 1): 876 labor camps (no. of laborers and percentage in each group in beet, berry, fruit, grape, hop and ranch labor camps; no. residents also given) In Calif. Comm. immigration and housing. 1st Annual rept. 1914, p.31-32 (classified as to their general condition, p.33; classified by nationalities, p.42-43)

1915,1914(Nov.1 to June 30): 107 labor camps (no. of laborers and percentage in each group in beet, berry, fruit, grape, hop and ranch camps; no. residents also given) In Calif. Comm. immigration and housing. 2d Annual rept. 1915, p.335-337.

1916,1915(July 1, to Jan. 1): 663 labor camps (no. of laborers - skilled and unskilled - and percentage in each group in beet, fruit, grape, hop and ranch labor camps; no. of residents also given) In Calif. Comm. immigration and housing. 2d Annual rept. 1915, p.347-349. (Classified by nationalities, p.366-368)

1916,1915(July 1 to Jan.1): labor camps (number of laborers required during working period; number hired during each month to maintain required crew in beet, fruit, grape, hop and ranch camps) In Calif. Comm. immigration and housing. 2d Annual rept. 1915, p.391.

1917: counties and center (no. of laborers usually employed by farmers attending 132 farm center meetings; no. of acres represented and type of farming) In Calif. Agr. exp. sta. Circ. 193, p.39-41.

1917(June 28, results): 17 counties, total (number of men, women, children, total, wanted as farm laborers; number who wanted labor; number who did not want labor) In Calif. Agr. exp. sta. [unnumbered Circ.] "The Farm Labor Situation in California," July 14, 1917, by R. L. Adams.

1917(year ended June 30): San Francisco, Oakland and Sacramento (various kinds of agricultural workers, such as asparagus pickers, grain feeders, milkers, farm teamsters, etc. placed by employment bureaus) In Calif. Bur. labor statistics. 18th Bien rept. 1917-1918, p.438-467.

Number of Agricultural Laborers - Continued

1917,1916: San Francisco office; Sacramento office (no. of farm laborers, farm teamsters called for during July, Aug. and Sept. and per cent of increase of 1917 over 1916) In Calif. Agr. exp. sta. Circ. 193, p.34, 35. (Public employment bureaus, Calif.)

1918(year ended June 30): Sacramento, Fresno, San Jose and numerous smaller places (various kinds of agricultural workers, such as asparagus pickers, grain feeders, milkers, truckers, etc. placed by employment bureaus) In Calif. Bur. labor statistics. 18th Bien. rept. 1917-1918, p.379-411.

1922-1913(annual): state (number farm laborers supplied to farmers through offices of the farm advisors) In Calif. Agr. exp. sta. Rept. 1922/23, p.438.

Number of Japanese Farmers and Farm Hands

1915: state (farm hands included in occupational table) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.178.

1919: Southern and Northern Calif. (farmers, nursery, dairy, farm laborers - agricultural employers and employees) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.179. (Japanese Agr. Assoc. of America)

Percentage of Farm Laborers Employed

1909(?): percentage of white and Japanese labor employed each month. In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, Chart III, following p.272.

1909(?): percentage of white and Japanese labor employed by white and Japanese farmers on fixed wage and on contract, classified by occupation and sex. In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.271-272.

1909(?): state. race of farm labor employed according to principal crops grown (farms operated by white owners) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, chart I, following p.270 (Employed according to principal occupations, chart II, following p.270)

Percentage of Japanese Engaged in Growing Itemized Agricultural Products

1915(?): state (berries, sugar beets, nursery products, grapes, vegetables, citrus fruits, deciduous fruits) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.117.

Percentage of Japanese Workers In Itemized Agricultural Pursuits

1915(?): state (berry pickers, vegetable pickers, celery (hand worked) beet toppers and loaders, beet hoers and thinners, grape pickers, pruners, fruit pickers) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.117.

LABOR - Continued

Percentage of Temporary Labor Employed by White Farmers

1909(?): state (classified by sex and average duration of employment for white laborers; Japanese) In Calif. Bur. labor statistics. 14th. Bien. rept. 1909-1910, p.273, table X. (Percentage of white and Japanese labor employed monthly, classified by sex, table XI, p.273)

Strike Data

1901: Fresno (cause, duration, outcome and number of people involved in raisin packers' and hop pickers' strikes) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.184.

1902: San Francisco (cause, duration, outcome and no. of people involved in sugar workers' strike) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.190.

1904: Redlands (cause, duration, outcome and number of people involved in orange packers' strike) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.200.

Wages

1859-1856(annual): state (wages paid for farm labor per month; by the year; during harvest) In Calif. state agr. soc. Trans. 1859, p.347.

1870: state and county (wages paid for labor) In Calif. state agr. soc. Trans. 1871, p.376-377 (U.S. Census, 1870)

1882,1879,1875,1869,1866: Calif. compared with eastern states; middle; southern; western (average monthly rate without board) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.49.

1882,1879,1875,1869,1866: states; section of U.S. (aver. monthly rate with and without board) In Calif. Bur. labor statistics. Statement of John Summerfield Enos... April 30, 1886, p.9-10.

1882,1879,1875,1869,1866: Calif. and individual states of U.S. (average monthly rate of wages, with and without board) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.50.

1882,1879,1875,1869,1866: Calif. and individual states of U.S. (wages of agr. labor per day in harvest, with and without board) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.51; in Calif. Bur. labor statistics. Statement of John Summerfield Enos. Apr. 30, 1886, p.11.

1883(?): state (maximum; minimum wages without board paid to gardeners and florists) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.213.

1883(?): Stanislaus, Sonoma, Santa Cruz counties (maximum, minimum, average wages - including board paid to farm laborers) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.107,113,121, questions 42,43,44 (Wages paid to gardeners and florists, p.111, 117, 127)

1885(?): counties (maximum, minimum, average wages - including board) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, questions 42,43,44 (County assessors)

## LABOR - Continued

Wages - Continued

1885(?): state (cotton pickers, average wages per week, p.24; florists and gardeners, minimum, maximum, and average wages per day, p.25 and 26; dairymen, maximum, minimum, and average wages per month, p.25; herders, wages per month, p.27) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-1886, p.24,25,26,27.

1885(?): Calif. wages compared with N. Y. and several countries (aver. weekly wages of gardeners) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-1886, p.143.

1887(?): state (maximum, minimum, and average wages per day for gardeners, p.139; nurserymen, p.142; per day and per month for florists, p.139; per month for wine makers, p.146) In Calif. Bur. labor statistics. 3d Bien. rept. 1887-1888, p.139, 142, 146.

1887(?): Calif. wages compared with other states and European countries (gardeners) In Calif. Bur. labor statistics. 3d Bien. rept. 1887-88, p.148.

1895-1898(annual): counties (average wages, Dec. 1, per month with board; per month without board; per day, during harvest, with board) In Calif. state agr. soc. Trans. 1895, p.109.

1902,1900: state (wages per day; per month of orchard pruners, milkers, orchard fruit packers) In Calif. Bur. labor statistics. 10th Bien. rept. 1901-1902, p.65 (Agricultural laborers, p.64)

1906: state and different sections (wages paid - by the day, the month, with board, without board - to farm workers who are permanent employes, temporary employes) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.76,77.

1906(subsequent to Apr. 18 and prior to Sept. 1): leading cities of Calif. (wages per week of buttermakers) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-06, p.90,91 (Total by industries and occupations)

1906: San Francisco, Los Angeles, Oakland, other cities (wages per day; wages per month of vegetable men, milkers, ranch hands, farm help sent out from employment agencies) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.178-180 (All data not given for all towns and not on all pages)

1907(?): state (?) (wages per day; per month of herders, ranch hands, harvest hands, milkers on large ranches devoted to raising of stock and cattle) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.126.

1907/08: state and different sections (wages per day; per month - with board, without board to farm workers who are permanent employes; temporary employes) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.121,122.

1907/08: San Francisco (wages per day; per month of gardeners, milkers, ranch hands furnished positions through employment agencies in San Francisco) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, table following p.150.

Wages - Continued

1907/08(fiscal year): San Francisco, Los Angeles, San Jose, smaller towns (wages per week of butter makers, buttermakers' helpers) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-08, p.18, 29,53,69 (Dairy employees, p.26,34,58,76)

1908(during month of April): Los Angeles, Oakland, Stockton, San Diego (wages per day; per month of dairymen, gardeners, milkers, ranch hands furnished positions through employment agencies) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.154, 155,156,157 (All data not given for all towns and on all pages)

1909(?): comparison of wages paid per day (with board and without board; no. on fixed wages; no. on contract) by white farmers employing whites only; white farmers employing whites and Japanese; Japanese farmers employing Japanese - classified by occupations) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, table VIII preceeding p. 271.

1909/10(also for 1908/09 for San Francisco): Oakland, Sacramento, Stockton, San Diego, San Francisco, Los Angeles (wages per day; per month of ranch hands, milkers, gardeners, dairymen furnished positions through employment agencies) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.318-323 and tables I, II, III following p.326. (All data not given for all cities and on all pages)

1909/10: Los Angeles, Sacramento, San Francisco, other cities and towns (wages per week of buttermakers, creamery hands, dairy employees, milkers, nurserymen) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-1910, p.138,151,160,163,169,172,178,203 (All data not given for all towns and on all pages)

1911(?): San Francisco, Los Angeles, Oakland, Sacramento, San Jose, Stockton, and miscellaneous small towns (wages per week of buttermakers) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-12, p.117,216,297,349,364,390,427 (Creamery hands, San Francisco, p.117)

1912(Jan.1): San Francisco gardeners' protective union, San Francisco milk protective union (rate of wages) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.595.

1914: central San Joaquin Valley. (rate of wages for farm labor classified by kind of labor) In Calif. Agr. exp. sta. Circ. 121, p.33.

1914(Jan.1): San Francisco milk protective union (rate of wages) In Calif. Bur. labor statistics. 16th Bien. rept. 1913-1914, p.240-241.

1916(Jan.1): San Francisco milk protective union (rates of wages) In Calif. Bur. labor statistics. 17th Bien. rept. 1915-1916, p.165.

1916,1915(July 1 to Jan. 1): labor camps (lowest rate of wages; (exclusive of board and lodging) highest; average paid on beet, fruit, grape, hop and ranch camps) In Calif. Comm. immigration and housing. 2d Annual rept. 1915, p.372-380 (Average wage not given for hop camp)

Wages - Continued

1917(year ended June 30): San Francisco, Oakland and Sacramento (wages per month of asparagus pickers; asparagus cutters; bean hoers; berry pickers; bean hands; brush cutters; creamery hands; corn pickers; dairymen; farm hands; fruit packers; gardeners; grape pickers; grain feeders; grain pitchers; grass cutters; hogmen; hop balers; hoppickers; irrigators; milkers; nursery men; orchard hands; pruners; prune dryers; sheep herders; sheep shearers; farm teamsters; truckers; and vegetable men) In Calif. Bur. labor statistics. 18th Bien. rept. 1917-1918, p.438-467.

1917: data from 26 dairies in vicinity of San Francisco and Oakland (range of wage; average wage paid to milkers) In Calif. Agr. exp. Sta. Circ. 193, p.36.

1917: 36 dairies in vicinity of San Francisco and Oakland (range of average monthly wage - board in addition - paid to farm hands on dairies) In Calif. Agr. exp. sta. Circ. 193, p.36.

1917(season): wage schedule established by Valley Fruit Growers' Assoc. at Fresno (time rates for July, Aug. and Sept.; piece or contract rate for picking peaches, grapes) In Calif. Agr. exp. sta. Circ. 193, p.36.

1917(Sept.): Southern Calif. (wages paid; rate per hour; value of board of ranch laborers classified by kind of labor - cutting corn; harvesting sugar beets; labor in bean harvest) In Calif. Agr. exp. sta. Circ. 193, p.35.

1917(?) (Sept.22): Fresno (rates offered for ranch hands; hay pitchers as posted on State Employment Bureau bulletins at Fresno) In Calif. Agr. exp. sta. Circ. 193, p.36.

1917(quarter Apr.-June): 1916 (July-Sept.): Sacramento (comparison of wages (including board and lodging) 1st and last quarter of fiscal year of teamsters placed by employment bureaus) In Calif. Bur. labor statistics. 18th Bien. rept. 1917-1918, p.417.

1917,1916: San Francisco, Sacramento (wages offered applicants for farm work, farm teamsters) In Calif. Agr. exp. sta. Circ. 193, p.35 (Public employment bureaus, Calif.)

1918(year ended June 30): Sacramento; Fresno, San Jose and numerous smaller places (number placed and wages per month of almond knockers, bean hoers, bean planters, farm hands (general); fruit workers; fruit pickers; fruit and grape laborers, farm teamsters, fruit cutters; farm foreman; farm flunkeys, grain feeders, gardeners, grain pitchers, grape pickers; grafters (grapevine); hay baler, hay hands, hop worker, harvest hands, irrigators, milkers, orchard hands, potato pickers; poultrymen, olive picker, prune pickers, pruners, rice hands, tree sprayer, seeder hands, sheep herders, truckers, turkey herders, vegetable men) In Calif. Bur. labor statistics. 18th Bien. rept. 1917-1918, p.379-411.

1919: investigation in Colusa, Butte and Glenn counties (during harvest (with meals); after harvest (with meals) for Japanese Common laborers; white common laborers; white teamsters) In Calif. State bd. control. Calif. and the Oriental, rev. ed. 1922, p.239.

## LABOR - Continued

### Wages - Continued

1920(year ended June 30): San Francisco, Oakland, Los Angeles, etc. (wages of agricultural workers similar to the ones listed for 1917 and 1918) In Calif. Bur. labor statistics. 19th Bien. rept. 1919-1920, p.472-503.

1926-1919(annual), 1925-1919 (average): state (per day without board; relative U.S. general wages; table also includes price and purchasing power of chief farm products of Calif. grape producing section) In Calif. Agr. exp. sta. Bul. 429, p.123 (1926 figures are preliminary)

1927-1910(annual;1923-1927 data for July 1): Calif., 11 western states; U.S.; Calif. compared with U.S. expressed as per cent. (farm labor - average per day, other than harvest time- wages without board; with board) In Calif. Dept. agr. Special pub. 86, p.5 (Same statistics for shorter periods within 1910-1925 in Special pub. 74, p.5; 63, p.6; 55, p.8, 43, p.5)

1927-1910(annual; 1923-1927 data for July 1): Calif.; 11 western states; U.S.; Calif. compared with U.S. expressed as per cent (farm labor -average per day, other than harvest time- wages without board; with board) In Calif. Dept. agr. Monthly bul.v. 16, Dec. 1927, p.761. (Same statistics for shorter periods within 1910-1925 in Monthly bul. v.15, July-Dec. 1926, p.218; v.14, July-Dec. 1925, p.282; v.13, July-Dec. 1924, p.241; v.12, July-Dec. 1923, p.442)

### Wages - Purchasing Power

1926-1919 (annual),1925-1919 (average): state (purchasing power of farm wages per day; per cent of 1919-25 average; purchasing power of relative U. S. general wages; table also includes price and purchasing power of chief farm products of Calif. grape producing section) In Calif. Agr. exp. sta. Bul. 429, p.123; chart based on this table p.97 (1926 figures are preliminary)

### Working Hours Per Day

1883(?): Stanislaus, Sonoma, Santa Cruz counties (maximum, minimum, aver. hours per day for gardeners and florists, farm laborers) In Calif. Bur. labor statistics. 1st Bien. rept. 1883-84, p.107, 111,113,117,121,127, questions 49,50,51 (All data not given on all pages; no. of months engaged per annum also given for gardeners and florists)

1885(?): state (cotton pickers, florists, dairymen, gardeners, herders) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.24,25, 26,27.

1885(?): counties (maximum, minimum, average hours per diem) In Calif. Bur. labor statistics. 2d Bien. rept. 1885-86, p.646-746, questions 49,50,51 (County assessors)

1902,1900: state (hours per day for agricultural laborers, milkers, orchard pruners, orchard fruit packers) In Calif. Bur. labor statistics. 10th Bien. rept. 1901-1902, p.64,65.

## LABOR - Continued

### Working Hours Per Day - Continued

1906(subsequent to Apr. 18 and prior to Sept. 1): leading Calif. cities (buttermakers) In Calif. Bur. labor statistics. 12th Bien. rept. 1905-1906, p.90,91.

1907/08 (fiscal year): San Francisco, Los Angeles, San Jose, smaller towns (dairy employees, butter makers, and helpers) In Calif. Bur. labor statistics. 13th Bien. rept. 1907-1908, p.18,26,29,34, 53,58,69,76.

1909/10: San Francisco, Los Angeles, Sacramento, Oakland, small towns (dairy employees, butter makers, creamery hands, milkers, nurserymen) In Calif. Bur. labor statistics. 14th Bien. rept. 1909-10, p.138,151,160,163,169,172,203 (All data not given for all towns and on all pages)

1911(?): San Francisco, Los Angeles, Oakland, Sacramento, San Jose, Stockton, and miscellaneous small towns. (no. buttermakers employed; hours per day) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.117,216,297,349,364,390,427 (Creamery hands, p.117)

1912(Jan.1): San Francisco gardeners' protective union, San Francisco milk protective union (hours of labor) In Calif. Bur. labor statistics. 15th Bien. rept. 1911-1912, p.595.

1914(Jan.1): San Francisco milkers' protective union (hours of labor) In Calif. Bur. labor statistics. 16th Bien. rept. 1913-1914, p.240-241.

1916(Jan.1): San Francisco milkers' protective union (hours of labor) In Calif. Bur. labor statistics. 17th Bien. rept. 1915-1916, p.165.

1917(Sept.): Southern Calif. (length of day for ranch labor classified by kind - cutting corn; harvesting sugar beets; bean harvest) In Calif. Agr. exp. sta. Circ. 193, p.35.

## COOPERATIVE BUYING AND SELLING

### Savings Made by Collective Buying and Selling

Inyo county (salt, potatoes, alfalfa, apples bought or sold collectively - value of individual business and amount saved; total value of business and total savings) In Calif. Agr. exp. sta. Rept. 1922/23, p.442.

Kings county (total value of business done by the exchange; total estimated savings to members) In Calif. Agr. exp. sta. Rept. 1922/23, p.445.

Two farm centers, Madera county (amount saved on cooperative buying of grape stakes; trellis wire; fuel-coal and wood; total savings) In Calif. Agr. exp. sta. Rept. 1922/23, p.443.

## FARM MANUFACTURES

### Value

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.376-377 (U. S. Census, 1870)

## FERTILIZERS

### Farm Expenditures for Fertilizers

1910-1880(10 year periods): state. In Calif. State bd. agr. Rept. 1911, p.19.

1910,1900: state and county. In Calif. State bd. agr. Repts. 1912-1918.

### Sales

1924 (quarterly and total); 1923 (last quarter): state (tons of agricultural mineral sold by registered dealers and manufacturers) In Calif. Dept. agr. Monthly bul. v.13, July-Dec. 1924, p.210.

1924-1904 (annual and quarterly): state. In Calif. Dept. agr. Monthly bul. v.13, July-Dec. 1924, p.210.

### Shipments

1905: Los Angeles county (shipped out of county) In Calif. state agr. soc. Rept. 1905, p.132.

### Value

1893/94: San Francisco city and county (made in fertilizer manufactories) In Calif. State bd. equalization. Rept. 1893 and 1894, p.112.

1895/96: San Francisco city and county (made in fertilizer manufactories) In Calif. State bd. equalization. Rept. 1895 and 1896, p.92.

1897/98: San Francisco city and county (made in fertilizer manufactories) In Calif. State bd. equalization. Rept. 1897 and 1898, p.93.

1901: Southern Calif. (estimated value) In Calif. state agr. soc. Trans. 1901, p.135 (Los Angeles Chamber of Commerce)

1905: Los Angeles county. In Calif. state agr. soc. Rept. 1905, p.133 (Production also given)

1906 (table headed 1905-06): Los Angeles county. In Calif. state agr. soc. Rept. 1906, p.104 (Production also given)

1907 (tables headed 1906-07): Alameda, San Bernardino counties (value of manufactured product) In Calif. state agr. soc. Rept. 1907, p.54,151.

1908 (tables headed 1907-08): Alameda, San Bernardino counties (value of manufactured product) In Calif. state agr. soc. Rept. 1908, p.44,150.

1909 (table headed 1908-09): San Bernardino county (value of manufactured product) In Calif. state agr. soc. Rept. 1909, p.140.

1910 (tables headed 1909-10): Alameda, San Bernardino counties (value of manufactured product) In Calif. state agr. soc. Rept. 1910, p.64,150.

1914: state (includes value and value added by manufacture) In Calif. State bd. agr. Statistical rept. 1917, p.266 (U.S.Census)

## FOREST PRODUCTS OF THE FARM

Value

1909: state. In Calif. State bd. agr. Repts. 1912-1918.

## INSECTS, BENEFICIAL

Production and Distribution

1919/20(?): distribution of insects by counties and state. In Calif. Dept. agr. Monthly bul. v.9, Oct.-Nov. 1920, p.445.

1920(July 1)-1921 (Dec.31): production (total and by insects) at state laboratory and county insectaries of enemies of citrus feeding mealybugs. In Calif. Dept. agr. Monthly bul. v.10, Nov.-Dec. 1921, p.596.

1921(?): 4 counties. number of Aphycus liberated. In Calif. Dept. agr. Monthly bul. v.10, Nov.-Dec. 1921, p.589.

1921/22: production (total and by insects) at Southern laboratory. In Calif. Dept. agr. Monthly bul. v.11, Nov.-Dec. 1922, p.833. Distribution by counties, p.834; production at various insectaries, p.835.

1922(to July 1): state and towns. distribution of Scymnus binaevatus. In Calif. Dept. agr. Monthly bul. v.11, Nov.-Dec. 1922, p.832.

1922/23: no. of insects grown in laboratory, field collected, used in laboratory, liberated in the field, and totals (by kinds of insects) In Calif. Dept. agr. Monthly bul. v.12, July-Dec. 1923, p.340. Field liberations of new insects on estates and ranches given on p.337.

1922/23: no. of insects shipped to foreign countries (country and name of person or institution given) In Calif. Dept. agr. Monthly bul. v.12, July-Dec. 1923, p.339.

1922/23-1917/18 (annual): laboratory production (by kinds of insects and totals) In Calif. Dept. agr. Monthly bul. v.12, July-Dec. 1923, p.341 (Similar statistics for shorter periods within these dates in Monthly bul. v.11, Nov.-Dec. 1922, p.834; v.10, Nov.-Dec. 1921, p.595; v.9, Oct.-Nov. 1920, p.444)

## SILK COCOONS

Quantity

1866: state and county. In Calif. Surveyor gen. Rept. 1865/67, p.78-79; in Calif. state agr. soc. Trans. 1866 and 1867, p.556-557. (County assessors)

1867: state and county. In Calif. state agr. soc. Trans. 1868, p.140-141; in Calif. Surveyor gen. Bien. rept. 1867/69, p.24-25. (County assessors)

1868: state and county. In Calif. state agr. soc. Trans. 1869, p. 362-363; in Calif. Surveyor gen. Bien. rept. 1867/69, p.60-61. (County assessors)

1869: state and county. In Calif. Surveyor gen. Statistical rept. 1869, p.14-15; in its Rept. 1869/71, p.20-21 (County assessors)

1869 (table headed 1869-70): state and county. In Calif. state agr. soc. Trans. 1870, p.180-181 (County assessors)

## SILK COCOONS - Continued

Quantity - Continued

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.374-375 (U. S. Census 1870)

1870: state and county. In Calif. Surveyor gen. Rept. 1869/71, p.74-75 (Assessors' repts.)

1871 (table headed 1870-71): state and county. In Calif. state agr. soc. Trans. 1871, p.390-391 (County assessors)

1872: state. In Calif. state agr. soc. Trans. 1872, p.385 (County assessors)

1872: state and county. In Calif. state agr. soc. Trans. 1873, p.208-209; in Calif. Surveyor gen. Bien. rept. 1871/73, p.34-35. (County assessors)

Receipts, Expenses and Profits

1868: receipts, expenses, profit from raising silk cocoons, eggs, (I. N. Hoag of Yolo) In Calif. state agr. soc. Trans. 1869, p.252 (Estimated gross receipts per acre; expenses of net profit from producing silk, p.256)

## IRRIGATION

Acreage Enterprises Were Capable of Irrigating

1910: state. In Calif. State bd. agr. Repts. 1911-1918 (Excess of acreage included in projects and excess of acreage enterprises were capable of irrigating given in Repts. 1913-1918)

1910: state and county. In Calif. State bd. agr. Repts. 1912-1918 (U. S. Census)

1920: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

Acreage Irrigated

"Areas which are irrigated in a year of normal run-off in the southern San Joaquin Valley - [classified by areas] - at the present time." (Area receiving canal service; canal and pump; only pump service; total area irrigated) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.31.

Area irrigated on Mojave River and in Victor Valley (area irrigated from river; from wells; total). In Calif. State dept. engineering. Bul. 5, p.28; in Calif. State dept. engineers. Bien. rept. 1916/18, appendix C, p.28.

Delhi state land settlement. In Calif. State land settlement bd. Rept. 1918/20, p.27.

1866: state and county. In Calif. state agr. soc. Trans. 1866 and 1867, p.568-569 (County assessors)

1867: state and county. In Calif. state agr. soc. Trans. 1868, p.152-153; in Calif. Surveyor gen. Bien. rept. 1867/69, p.36-37 (County assessors)

1868: state and county. In Calif. state agr. soc. Trans. 1869, p.374-375; in Calif. Surveyor gen. Bien. rept. 1867/69, p.72-73. (County assessors)

Acreage Irrigated - Continued

1869: state and county. In Calif. state agr. soc. Trans. 1870, p. 192-193; in Calif. Surveyor gen. Statistical rept. 1869, p.24-25; in its Bien. rept. 1869/71, p.32-33 (County assessors)

1870: state and county. In Calif. Surveyor gen. Rept. 1869/71, p.86-87; in Calif. state agr. soc. Trans. 1871, p.402-403. (Assessors' repts.)

1871: state and county. In Calif. state agr. soc. Trans. 1872, p.384 (County assessors)

1872 (tables headed 1873): Tehama county. In Calif. state agr. soc. Trans. 1873, p.262; in Calif. Surveyor gen. Bien. rept. 1871/72, p.92 (County assessors)

1872: Ventura county. In Calif. state agr. soc. Trans. 1873, p.265; in Calif. Surveyor gen. Bien. rept. 1871/73, p.95 (County assessor)

1873: state and county. In Calif. state agr. soc. Trans. 1874, p.224-225; in Calif. Surveyor gen. Bien. rept. 1873/75, p.44-45 (County assessors)

1874: state and county. In Calif. state agr. soc. Trans. 1875, p.136-137; in Calif. Surveyor gen. Bien. rept. 1873/75, p.68-69 (County assessors)

1875: state and county. In Calif. state agr. soc. Trans. 1876, p.110-111; in Calif. Surveyor gen. Bien. rept. 1875/77, p.38-39. (County assessors)

1876: state and county. In Calif. state agr. soc. Trans. 1876, p.132-133; in Calif. Surveyor gen. Bien. rept. 1875/77, p.60-61. (County assessors)

1877: state and county. In Calif. state agr. soc. Trans. 1878, p.358-359 (County assessors)

1878: state and county. In Calif. state agr. soc. Trans. 1879, p.244-245; in Calif. Surveyor gen. Bien. rept. 1877/79, p.26-27. (County assessors)

1878-79 (Nov. to Oct. 4 - 3 month periods; summary for year): principal canals by which water is diverted from Kings River (tables 1-5 headed "amount of water supplied by Kings River and the amount diverted;" tables 6-10 headed "amount of water supplied by Kings River, and the amount applied for irrigation;" number of acres irrigated given in each table) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.151-155,157-161.

1879(?): state and county. In Calif. State bd. equalization. Rept. 1880, p.126.

1879: state and county. In Calif. state agr. soc. Trans. 1879, p.266-267; in Calif. Surveyor gen. Bien. rept. 1877/79, p.48-49. (County assessors)

1879: canals of Mussel Slough country; canals leading out from Kings river (acreage irrigated; total acres irrigable, cost of irrigation works) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.127-128.

Acreage Irrigated - Continued

1879: Los Angeles and San Bernardino counties (areas irrigated by streams from Los Angeles, San Gabriel, Santa Ana River watersheds and Trabuco and San Juan creeks; area irrigated by water supply from cienegas of Los Angeles River Valley, San Gabriel and Santa Ana River watersheds, total; area irrigated from natural streams, from cienegas, from artesian wells, total; acres irrigated by various canals of numerous river systems and streams, with approximate length of canals and cost) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix A, pt. 4, p.9-10,12,18,21-24.

1879: 6 districts of Kern county, total (total area of districts; acres irrigated and area irrigable; length, cost, and capacity of canals and average cost of canals per acre) In Calif. Dept. engineers. Rept. of state engineer to legislature, session, 1880, appendix B, p.78. (Total number of acres irrigated by name of canal, p.81)

1879,1878: canals in the Mussel Slough district (irrigated land) In Calif. Dept. engineers. Rept. state engineer to legislature, session 1880, appendix C, p.137.

1880 (table headed 1879-80): counties. In Calif. Surveyor gen. Rept. 1879/80, p.74-75 (County assessors)

1885: individual irrigators in Lugonia district (acres irrigated; number of shares of water held by irrigators; total acres owned) In Calif. Office state engineer. Rept. on irrigation and the irrigating question, v.2, p.159.

1886,1885,1882-1880 (annual): Riverside Colony (acres owned given also) In Calif. Office state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

1887-1864 (given in 7 periods of 2,3,4, or 7 years each): Santa Ana ditches (range in acreage) In Calif. Office state engineer. Rept. on irrigation and the irrigation question, v.2, p.261.

1888-1879,1876-1871(annual): Riverside canals. In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.219 (1888 figure subject to revision)

1888,1886,1880: acreage irrigated by each zanja outside city (Los Angeles); total. In Calif. Office state engineer. Rept. on irrigation and the irrigation question, v.2, p.557.

1891(?): Calif.; other states in "arid region"; total (estimated area under ditch) In Calif. State bd. hort. Annual rept. 1892, p.45.

1899,1889 (table headed 1890 and 1900): state and county (with per cent of increase) In Calif. State bd. agr. Rept. 1911, p.206. (1900 figure includes Indian reservations)

1901: areas diverting from Tule River; total area (irrigation by ditches) In Calif. Div. engineering and irrigation. Bul. 3, p.121 (U.S.D.A.)

1905: counties. In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

## IRRIGATION - Continued

Acreage Irrigated - Continued

1906 (tables headed 1905-06): counties. In Calif. state agr. soc. Rept. 1906 (See Contents under names of counties)

1907 (tables headed 1906-07): counties. In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)

1908 (tables headed 1907-08): counties. In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)

1909(?): state (total and classified by name of reclamation service and by name of stream with per cent of distribution) In Calif. State bd. agr. Repts. 1912-1918.

1909 (tables headed 1910): state (irrigated with pumped wells; and with pumped water from all sources; with flowing wells) In Calif. State bd. agr. Repts. 1911-1918.

1909 (tables headed 1910): state and county (land in farms) In Calif. State bd. agr. Repts. 1912-1918 (U. S. Census)

1909 (tables headed 1908-09): counties. In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)

1909: counties. In Calif. State bd. agr. Statistical repts. 1914-1918 (U. S. Census)

1909: central coast valleys, San Joaquin Valley.- total and by counties (acres irrigated by pumping plants, flowing wells, ground waters) In Calif. State bd. agr. Repts. 1912-1918; in Calif. State conservation comm. Rept. 1912, p.175,192 (U.S. Census)

1909,1899 (tables headed 1900 and 1910): state (increase and per cent of increase over 1900 is given in some cases) In Calif. State bd. agr. Repts. 1911-1918.

1910 (tables headed 1909-10): counties. In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)

1911-1909 (revised to 1912): northern, central, southern Calif. and total (agricultural areas in irrigation zones; acres irrigated; total areas it is estimated may ultimately be irrigated; approximate per cent of total estimated as ultimately irrigable) In Calif. State bd. agr. Statistical repts. 1913-1918.

1912: counties of San Joaquin Valley, total (area reported irrigated) In Calif. State conservation comm. Rept. 1912, p.192; in Calif. State bd. agr. Repts. 1912-1918.

1912(?): areas south of San Joaquin river; north of San Joaquin River; totals (irrigated by principal streams in San Joaquin Valley) In Calif. State conservation comm. Rept. 1912, p.225.

1912(?): areas in various sections of Calif. and totals (compared with agricultural lands classified by types; estimated area that will ultimately be irrigated given for some of these sections, also principal water source for irrigation) In Calif. State Conservation comm. Rept. 1912, p.95-98,101,111,122,127,143,174, 189,230,234,254,268,291,299,305,319,326,327; in Calif. State bd. agr. Rept. 1912, p.200-204,206-211.

## IRRIGATION - Continued

### Acreage Irrigated - Continued

1912: Imperial Valley (?) (irrigated areas under Calif. development co.) In Calif. State conservation comm. Rept. 1912, p.313.

1912(?): northern Calif.; central Calif. (classified by divisions and compared with different types of land and with total acreage of each type) In Calif. State conservation comm. Rept. 1912, p.94,173,240; in Calif. State bd. agr. Repts. 1912-1918 (Table on p.240 of first report also shows estimated area which will ultimately be irrigated in central Calif.)

1912(?): 6 regions, total (estimated acreage agricultural land; irrigated acreage; ultimately irrigable acreage) In Calif. Comm. immigration and housing. Rept. on large land holdings in Southern Calif. 1919, p.10.

1912(?): southern Calif. (classified by areas and compared with acres of land and with estimated acreage of irrigable lands) In Calif. State bd. agr. Repts. 1912-1918.

1914(?):areas of the Pit River basin (irrigated and irrigable lands) In Calif. Dept. engineering. Calif. cooperative work. Rept. on Pit River basin p.83. Irrigated areas also p.85.

1916: Coachella Valley by irrigated areas. In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix D, p.18; in its Bul. 4, p.18.

1916: Calif. other states, U. S. (classified by project) In Calif. State bd. agr. Statistical repts. 1916, p.200; 1917, p.221.

1916: Orland project (no crop acreage of nonbearing orchards; young alfalfa; miscellaneous; cropped acreage; total irrigated acreage) In Calif. State bd. agr. Statistical rept. 1917, p. 223.

1916: Yuma project (new land and nonbearing orchard; cropped acreage; total irrigated acreage) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1916: Yuma and Orland projects (farms) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1917: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical rept. 1918, p.245.

1918: diversions from Kings River (area served, estimated area irrigated) In Calif. Dept. engineering. Bul. 7, 1918, p.113.

1918: Orland project (no-crop acreage of non-bearing orchard, young alfalfa, not-cropped; cropped acreage; total irrigated acreage, less duplicated area) In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma, Klamath projects (total cropped acreage; no-crop acreage; total irrigated acreage) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1918: Yuma, Orland, Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1919(Dec.31): state and county (irrigated acreage occupied by whites and Orientals) In Calif. State bd. control. Calif. and the Oriental, 1922 ed. p.48 (Frank Adams)

## IRRIGATION - Continued

Acreage Irrigated - Continued

1919: counties. In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

1919,1902: drainage basins; total (per cent increase given, also area included in enterprises 1920 and area enterprises were capable of irrigating in 1920) In Calif. State bd. agr. Statistical rept. 1921, p.28-29.

1919,1902: San Joaquin Valley - acreage irrigated classified by streams; total; entire state (increase expressed in per cent given, also area included in enterprises 1920 and area enterprises were capable of irrigating in 1920) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.31. (U.S. Census)

1919,1909: Tulare county (ratio for 1919 to 1909 also given) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 3, p.57 (U. S. Census)

1919,1909 (tables headed 1910 and 1920): Calif., sections of Calif. compared with U.S. (per cent of increase given, also capital invested in irrigation enterprises) In Calif. Dept. public works. Div. water rights. Bul. 3, p.42 (U.S.Census)

1919,1909,1899: state (total acreage irrigated; acreage irrigated from underground sources; per cent increase 1909-1919) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt.4, p.76 (U.S. Census)

1919,1909,1899: 9 counties of southern Calif.; total (also shows increase 1899 to 1909, and 1909 to 1919) In Calif. State Dept. engineering. Bien. rept. 1919-1920, p.117 (Preliminary figures of U. S. Census)

1920: 6 areas dependent on the run-off of Kaweah River, Tulare county, total (area irrigated by ditch only; by ditch and pump; by pump only; total area) In Calif. Div. engineering and irrigation. Bul. 3, p.55.

1920: 3 systems and total in San Diego section. In Calif. Div. engineering and irrigation. Bul. 6, lower section of plate II following p.74.

1920: 16 sections of Calif. In Calif. Div. engineering and irrigation. Bul. 6, p.32-68.

1920(?): 4 areas and total, dependent on Kaweah river for ground water supply (by ditch and pump; by pump only) In Calif. Div. engineering and irrigation. Bul. 3, p.64.

1920, 1900,1880,1870: state (chart showing growth of area in improved and irrigated farm lands) In Calif. Div. engineering and irrigation. Bul. 6, p.13.

1920,1900,1880,1860: state (chart showing growth in irrigated farm lands and in improved farm land) In Calif. Agr. exp. sta. Bul. 435, p.11 (U.S.Census)

1920,1919: 17 large projects in the Sacramento Valley, total (expected diversions in 1920 also given) In Calif. Dept. public works. Div. water rights. Bul. 3, p.99.

Acreage Irrigated - Continued

1920/21: state and county (agricultural area; irrigated area of valleys, plains, foot hills, total) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 3, p.52-53 (Acreage irrigated for counties only, pt. 4, p.17)

1921(Dec.31): state and county (irrigated area compared with total agricultural area; areas classified as valley, plains, foothills and total) In Calif. State bd. agr. Statistical rept. 1921, p.30-31.

1921: Kaweah River areas (irrigated by canal and by pumping; by pumping only); Tule River area - upper, middle, lower portions, total; eastern, western, total. (total areas irrigated; gross area; per cent of gross area irrigated, etc.) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.86,98,105.

1921: 33 projects of Sacramento Valley (total maximum acreage irrigated; total acreage of projects) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 4, table 9, p.93.

1921: Turlock irrigation district; 11 systems and total in San Joaquin valley district. In Calif. Div. engineering and irrigation. Bul. 6, upper and middle section of plate II following p.74.

1921: areas diverting from Tule river; total area (irrigation by ditches); 5 areas and total in the Kaweah delta. In Calif. Div. engineering and irrigation. Bul. 3, p.121,109.

1921-1916(annual): 33 projects of Sacramento Valley (irrigated acreage; acreage under permits up to beginning of season; per cent under permit that is irrigated) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 4, table 10, p.93.

1921-1918(annual): lands within Lindsay-Strathmore irrigation district; lands not included within these boundaries. In Calif. Div. engineering and irrigation. Bul. 3, p.88.

1922(?): acreage irrigated by various systems. In Calif. Div. engineering and irrigation. Bul. 6, p.117-169.

1922(Jan.1): irrigation areas located by counties (acreage in areas; year of organization given, also amount of bonds voted) In Calif. Div. engineering and irrigation. Bul. 1, p.6-7.

1922: Sacramento Valley counties and total; San Joaquin Valley counties and total; (total acres) In Calif. Bd. state harbor commissioners. Bien. rept. 1924/26, p.77.

1922-1920 (period ended Sept. 1): individual projects of 100 acres or more located by county. In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 4, p.129-132.

1924-25,1922-24,1920-21 (period ended Nov. 1): White Creek Area. In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.111.

1925-1919 (annual): east side canal area (acreage irrigated from canal; under canal by pumps; outside pumps only; total) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.123.

## IRRIGATION - Continued

Acreage Irrigated - Continued

1925-1919 (annual): Rosedale area (irrigated from canals; from pumps only; total. Shafter-Wasco-McFarland area (irrigated from canals; by wells; total) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.128,133. (Gross area for Shafter-Wasco-McFarland area p.137)

1926: central coastal plain (valley only) (acreage of farm land irrigated; acreage irrigable; non-irrigable acreage and acreage of other areas using water) In Calif. Dept. public works. Div. water rights. Bul. 5, p.43. (The hillsides of the above area classified by area cultivated, fallow and waste also on p.43)

1926: San Gabriel Valley (irrigated land classified as valley land; hills; foothills and total; irrigable and non-irrigable acreage also given) In Calif. Dept. public works. Div. water rights. Bul. 5, table 1, p.12 (Status of lands - Coastal plain, given in table 2 following table 1; Table 6, p.30 contains same data for the basins of San Gabriel Valley as table 1 on p.12)

1926: San Gabriel Valley, coastal plain (status of lands -Plates showing irrigated areas; unirrigated areas, etc.) In Calif. Dept. public works. Div. water rights. Bul. 5, plates 15 and 16 in pocket.

1926: San Gabriel Valley, San Jose Valley, total (acreage and per cent of irrigated land valley; hill; foothill and total; irrigable, non-irrigable acreage; total acreage) In Calif. Dept. public works. Div. water rights. Bul. 5, p.28.

1926: 4 basins of San Gabriel Valley (irrigated; irrigable; non-irrigable and total acreage classified by valley, hill, foothill and total lands; per cent) In Calif. Dept. public works. Div. water rights. Bul. 5, p.47,50,51 (Tables showing the acre-feet of water used in these basins for a given number of years follow)

1926,1912,1904: 4 basins of San Gabriel Valley (acreage using water) In Calif. Dept. public works. Div. water rights. Bul. 5, p.47,50,51 (Glendora Basin data for 1926 and 1912 only)

1926,1912,1904: San Gabriel Valley - main basin, San Jose Valley, other basins. In Calif. Dept. public works. Div. water rights. Bul. 5, p.28.

1926-1916(annual): a Calif. irrigation district. In Calif. Agr. exp. sta. Bul. 435, p.54.

1926-1924(period ended Sept. 1): individual projects of 100 acres or more located by county. In Calif. Div. water rights. 3d Bien. rept. 1924/26, table 30, p.147-152.

Acreage of Improved Land in Farms Irrigated

1900: state, county, Indian reservations (compared with total improved acreage) In Calif. State bd. agr. Rept. 1911, p.221.

## Acreage To Be Irrigated

1923-1915 (annual): records of applications for permits to appropriate water from Sacramento River for acreage to be irrigated (no. of applications and second-feet applied for also given). In Calif. Dept. public works. Div. water rights. Bul. 3, p.43. (Data of permits issued p.44)

## Agricultural Areas in Irrigation Territory

Named points about Victorville, total (gross areas) In Calif. State dept. engineering. Bul. 5, p.26; in Calif. State dept. engineering. Bien. rept. 1916/18, appendix C, p.26.

## Agricultural Areas Requiring Water Supply

1922(?): Valley floor areas; intermediate areas; foot hill areas. (gross area, areas unfit for irrigation; irrigable areas devoted to non-agricultural purposes; net area requiring water supply; net area expressed as per cent of gross area) In Calif. Dept. public works. Bul. 6, p.70.

## Area in Irrigation Districts

Area in acres (in most cases approximate) of irrigation districts organized under the Wright act of 1887; name of districts, county or counties in which located, year organized given. In Calif. State dept. engineering. Bul. 2, p. 120-131.

1866: state and county (acreage in irrigating ditches) In Calif. Surveyor gen. Rept. 1865/67, p.90-91 (County assessors)

1890,1880: water systems of San Bernardino county (acreage in irrigating systems) In Calif. State bd. hort. Annual rept. 1892, p.205.

1905: Fresno county (acreage under irrigating systems) In Calif. state agr. soc. Rept. 1905, p. 104.

1907/08: Sanislaus county (acreage in irrigation districts) In Calif. state agr. soc. Rept. 1908, p.194.

1910: state (area included in irrigation projects) In Calif. State bd. agr. Repts. 1911-1918.

1910: state and county (area included in irrigation projects) In Calif. State bd. agr. Repts. 1912-1918 (U.S. Census)

1915(July 1): 17 districts (name, location, and area of old districts formed under the original Wright Act or its successor.) In Calif. State water comm. Rept. 1915-1913, p.100.

1916(Feb.1): district and county (Calif. irrigation districts) In Calif. State bd. agr. Statistical repts. 1915, p.191; 1916, p.201. (Sketch map showing location of active or recently organized irrigation districts in Calif. State dept. engineering. Bul. 2, following p.61)

1918(Nov.1): (number and names of districts by counties; year organized; area in acres; bonds voted; address of secretary) In Calif. State bd. agr. Statistical rept. 1918, p.249.

## Area in Irrigation Districts - Continued

1919,1909: state (irrigated area of Calif. from each source of water supply and the percentage of total; increase and percentage of increase in irrigated area from each source of supply; undeveloped irrigable area for which irrigation works are constructed) In Calif. Agr. exp. sta. Bul. 435, p.16.

1920: counties (area included in irrigation projects) In Calif. State bd. agr. Statistical repts. 1920-1921 (U. S. Census)

1920:(Nov.1): 68 districts (names of districts, county in which located, year organized) In Calif. State dept. engineering. Bien. rept. 1919-1920, p.133-134 (68 districts grouped geographically with their areas given, also total area p. 134)

1922(Oct.1): districts located by counties (area in acres) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt.3, p.23-24.

1923(July 1): 96 districts in state; total In Calif. Div. engineering and irrigation. Bul. 7, p.6-7.

1924(?): state (?) (undeveloped irrigable land - total acreage; acreage in irrigation districts; reclamation districts; mutual public-utility companies; individual and partnership ownerships) In Calif. Agr. exp. sta. Bul. 435, p.19.

1924(Nov.30): districts located by counties (acreage of active districts; inactive districts) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.17-18.

1924: reclamation districts of Delta region;Sacramento Valley; Calif. irrig. districts. (acreage of irrigable land not irrigated and number of districts) In Calif. Agr. exp. sta. Bul. 435, p.17.

1924,1915,1900,1887: state (chart showing acreage in irrigation districts) In Calif. Agr. exp. sta. Bul. 435, p.15.

1925(June 30): numerous districts, totals (active; inactive) In Calif. Div. engineering and irrigation. Bul. 10, p.7.

1926(Nov.1): districts located by counties (acreage of active irrigation districts; inactive districts) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1924/26, p.17-18.

1926-1916(annual): non-irrigated land in a Calif. irrigation district. In Calif. Agr. exp. sta. Bul. 435, p.54.

1927(July 1): districts located by counties (acreage of active districts; inactive districts) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 13, p.7-8.

## Cost and Value of Irrigation

Approximate cost of pumping plants of different types and cost per foot of pipe. In Calif. Agr. exp. sta. Circ. 117 [Apr. 1914] p.21-22.

Delhi state land settlement (estimated cost of system per acre; total) In Calif. State land settlement bd. Rept. 1918/20, p.27.

Cost and Value of Irrigation

Estimated cost of constructing the first unit of the comprehensive plan of coordinating the use of water in the San Joaquin Valley, including itemized and total cost of dams, storage reservoirs, slough extension, levees, pumping plants and annual operating costs. In Calif. Div. engineering and irrigation. Bul. 9, (pub. 1925) p.21-30. Estimated cost of constructing the second unit, p.32-41.

Irrigation districts of Calif. (assessments of irrigation lands per acre (cost of operation and maintenance) - assessment also includes an average payment for the redemption of bonds) In Calif. Agr. exp. sta. Bul. 435, p.48.

Preliminary cost estimates of 3 reservoirs - on Sacramento, Yuba and American rivers. In Calif. Div. engineering and irrigation. Bul. 9, (pub. 1925) p.48,50,51.

Summary of annual, minimum and maximum per acre and per acre-foot costs of irrigation water in Calif. by type of enterprise. In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.87.

1875,1874: counties (assessed value) In Calif. State bd. equalization. Rept. 1874-1875, p.86-87,90-91.

1879(?): canals of Mussel Slough Country; canals leading out from Kings River (cost of irrigation works - acreage irrigated and total acreage irrigable given also) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.127, 128.

1885: Placer county (water ditches-taxable wealth) In Calif. Bur. labor statistics. 2nd Bien. rept. 1885-86, p.243.

1886: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1885 and 1886, p.73.

1887: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1887 and 1888, p.72.

1888: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1887 and 1888, p.92.

1888: counties (value of ditches) In Calif. State bd. equalization. Rept. 1887 and 1888, p.45-52 (Value per mile also given)

1889: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1889 and 1890, p.54.

1890: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1889 and 1890, p.73.

1891: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1891 and 1892, p.54.

1892: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1891 and 1892, p.84.

1892(?): counties (assessed value of individual canals or ditches; total for county) In Calif. State bd. hort. Annual rept. 1892, p.73-316 (Nevada Co., p.180, shows cost of ditches and does not give assessed value)

Cost and Value of Irrigation - Continued

1893: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1893 and 1894, p.67.

1894: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1893 and 1894, p.97.

1895: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1895 and 1896, p.37.

1896: state and county (value of ditches) In Calif. State bd. equalization. Rept. 1895 and 1896, p.80.

1901(?): Merced county (canals) In Calif. state agr. soc. Trans. 1901, p.279 (County assessor)

1901(?): Nevada county (cost of main ditches (by companies and total); also area in acres of principal lakes, capacity, and size of dams) In Calif. state agr. soc. Trans. 1901, p.301.

1905: counties (cost of ditches) In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

1906(tables headed 1905-06): counties (cost of ditches) In Calif. state agr. soc. Rept. 1906 (See Contents under names of counties)

1907(tables headed 1906-07): counties (cost of ditches) In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)

1908(tables headed 1907-08): counties (cost of ditches) In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)

1909(tables headed 1908-09): counties (cost of ditches) In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)

1910: state (average annual cost of operation and maintenance of irrigating systems) In Calif. State bd. agr. Rept. 1911, p.222.

1910: state (cost of systems average per acre included in projects; estimated final cost of existing enterprises) In Calif. State bd. agr. Repts. 1912-1918.

1910: state and county (average per acre costs of enterprises capable of irrigation) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

1910(as of July 1): state and county (cost of irrigating systems) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

1910(as of July 1): counties (cost of irrigating systems) In Calif. State bd. agr. Statistical repts. 1914-1918 (U.S.Census)

1910(tables headed 1909-10): counties (cost of ditches) In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)

1910: counties (average per acre cost of enterprises capable of irrigation in 1910) In Calif. State bd. agr. Statistical repts. 1914-1918 (U.S.Census)

1910-1900: state (cost; average cost of systems per acre) In Calif. State bd. agr. Repts. 1911-1918 (Does not include Indian reservations; amount and per cent of increase over 1900 are given in some cases)

1918: diversions from Kings River (annual cost of water per acre) In Calif. Dept. engineering. Bul. 7, 1918, p.113.

Cost and Value of Irrigation - Continued

1918: Southern Calif. irrigating companies (cost of water; factors affecting the cost of water) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, appendix following p.62.

1920,1902: drainage basins; total (capital invested in irrigation enterprise; amount and per cent of increase) In Calif. State bd. agr. Statistical rept. 1921, p.28.

1922: electric plants tested in Sacramento Valley (maximum, minimum annual cost of water per acre-foot; per acre; per acre-foot per foot lift; cost of plant per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 31, p.53.

1922: individual districts in northern, central, southern Calif. (average duty of water per acre at delivery gate; factors in annual cost of water; annual cost of water) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 1, following p.10, table 8, following p.16.

1922(?): mutual water companies of northern, central, southern, Calif., state (minimum, maximum cost (annual) per acre of water including interest on capital invested; cost of all gravity water; cost of all pumped water) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 20-22, p.30-31.

1922: mutual water companies in northern, central, southern Calif. (average duty of water per acre at delivery gate; factors in annual cost of water; annual cost of water and capital stock) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17,18, following p.26.

1922: northern, central, southern Calif., state (minimum, maximum (annual) cost per acre and per acre-foot of water, excluding interest on retired bonds; annual cost of all gravity water; annual cost of all pumped water) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 10-12, p.19-21.

1922: private pumping plants in Sacramento Valley (annual cost of water per acre-foot pumped; annual cost of water; cost of plant; annual costs for plant) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 30, following p.52.

1922(?): public utilities of northern, central, southern Calif., entire state (minimum, maximum cost of water per acre and per acre-foot, including interest on capital invested) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 3, p.12.

1923: private electric pumping plants in central Calif. (annual cost of water per acre-foot pumped; annual cost of water; cost of plant; annual costs for plant) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 32 following p.54.

1923: Santa Clara Valley; San Joaquin Valley (maximum, minimum annual cost of water per acre-foot; per acre; per acre-foot per foot lift; cost of plant per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 33,34, p.54.

Cost and Value of Irrigation - Continued

1926-1924(period ended Sept.1): individual projects of 100 acres or more located by county (est. cost of water for irrigation) In Calif. Div. water rights. 3d Bien. rept. 1924/26, table 30, p.147-152.

Cost of Developing Farms in Irrigated Areas See p.37

Diversions of Canals

Miscellaneous data on monthly diversions of canals: dates range from 1904 to 1913: individual farms from Sacramento Valley, data for canals from Shasta to Imperial valleys (summary shows crops irrigated, acreage, year, per cent of total water diverted each month, location and canal) In Calif. State dept. engineering. Bul. 1, p.46-50; in Calif. State dept. engineering. Bien. rept. 1912/14, p.199-203.

Duty of Water

Miscellaneous data on gross duty of water: dates range from 1903 to 1913: (summary shows location, year and acreage of given crops, source of water supply and gross duty per acre) In Calif. State dept. engineering. Bul. 1, p.37-40; in Calif. State dept. engineering. Bien. rept. 1912/14, p.190-193.

Monthly demand of water for irrigation expressed as a percentage of the total amount used in one year; demand for power. In Calif. Dept. public works. Div. water rights. Bul. 3, p.151.

1898(Jan.-June),1899(June 1898 to Jan.1899): Chino Valley (gallons of water used for various fruits; forest trees; lawn; garden; nursery; etc.) In Calif. Agr. exp. sta. Bul. 147, p.65.

1914,1913: 62 Sacramento Valley farms (located by section)(acreage of each tract; per cent of total water applied each month during irrigation season) In Calif. State dept. engineering. Bul. 1, p.51-53; in Calif. State dept. engineering. Bien. rept. 1912/14, p.204-206.

1922: irrigating companies of northern, central, southern Calif., state (minimum quantity per acre; maximum quantity per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 2, p.10.

1922: irrigation districts in northern, central, southern Calif., and state (minimum; maximum quantity of water used per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 9, p.19.

1922(?): mutual water companies in northern, central, southern Calif.; state (minimum, maximum quantity of water used per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 19, p.29.

Irrigable Area

19--(?): state, county and districts (acreage under existing systems) In Calif. State bd. agr. Rept. 1911, p.212.

1916: Calif., other states, U.S. (acreage irrigable area under existing systems - classified by project) In Calif. State bd. agr. Statistical repts. 1916, p.200; 1917, p.221.

1917: Calif., other states, U.S. (acreage irrigable area under existing systems - classified by project) In Calif. State bd. agr. Statistical rept. 1918, p.245.

1920(Sept.1, date of tabulation of data): state (estimated acreage possible of irrigation) In Calif. State water commission. 3d Bien. rept. 1918/20, p.16.

Irrigable Area Irrigated In Relation To Investment

1925-1900(5-year periods): 4 Calif. irrigation districts (chart showing percentage of ultimate investment made each year and percentage of ultimate irrigable area irrigated each year) In Calif. Agr. exp. sta. Bul. 435, fig. 7, p.40.

Irrigating Ditches - Length

1875,1874: counties. In Calif. State bd. equalization. Rept. 1874-75, p.86-87,90-91.

1879(?): state and county. In Calif. State bd. equalization. Rept. 1880, p.126.

1881(table headed 1880-81): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.70.

1882(table headed 1881-82): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.86.

1885: Placer, Yuba counties. (miles of water ditches - taxable wealth) In Calif. Bur. labor statistics. 2nd Bien. rept. 1885-86, p.243,324.

1888: counties. In Calif. State bd. equalization. Rept. 1887 and 1888, p.45-52 (County assessors)

1892(?): counties (length of individual canals; total length for county) In Calif. State bd. hort. Annual rept. 1892, p.73-316. (Kern county (p.122) and Nevada county (p.180) show capacity in inches)

1901(?): Nevada county (length and capacity (by companies, and total); also area in acres of principal lakes, capacity, and size of dams) In Calif. state agr. soc. Trans. 1901, p.301.

1905: counties. In Calif. state agr. soc. Rept. 1905 (See Contents under names of counties)

1906(tables headed 1905-06): counties. In Calif. state agr. soc. Rept. 1906 (See Contents under names of counties)

1907(tables headed 1906-07): counties. In Calif. state agr. soc. Rept. 1907 (See Contents under names of counties)

1908(tables headed 1907-08): counties. In Calif. state agr. soc. Rept. 1908 (See Contents under names of counties)

1909(tables headed 1908-09): counties. In Calif. state agr. soc. Rept. 1909 (See Contents under names of counties)

Irrigating Ditches - Length - Continued

1910(tables headed 1909-10): counties. In Calif. state agr. soc. Rept. 1910 (See Contents under names of counties)

1910: state (total length of ditches) In Calif. State bd. agr. Repts. 1911-1918.

1910: state (length of lateral ditches) In Calif. State bd. agr. Repts. 1911, p.222; 1912, p.192.

1910: state and county (main ditches on farms; lateral ditches on farms) In Calif. State bd. agr. Repts. 1912-1918.

1910,1900: state (length of main ditches) In Calif. State bd. agr. Rept. 1911, p.213,222.

Irrigating Ditches - Number

1866: state and county. In Calif. Surveyor gen. Rept. 1865/67, p.90-91; in Calif. state agr. soc. Trans. 1866 and 1867, p.568-569 (County assessors)

1867: state and county. In Calif. state agr. soc. Trans. 1868, p.152-153; in Calif. Surveyor gen. Bien. rept. 1867/69, p.36-37 (County assessors)

1868: state and county. In Calif. state agr. soc. Trans. 1869, p.374-375; in Calif. Surveyor gen. Bien. rept. 1867/69, p.72-73 (County assessors)

1869: state and county. In Calif. state agr. soc. Trans. 1870, p.192-193; in Calif. Surveyor gen. Statistical rept. 1869, p.26-27; in Bien. rept. 1869/71, p.32-33 (County assessors)

1870: state and county. In Calif. state agr. soc. Trans. 1871, p.402-403; in Calif. Surveyor gen. Bien. rept. 1869/71, p.86-87 (County assessors)

1871: state. In Calif. state agr. soc. Trans. 1872, p.384 (County assessors)

1872(tables headed 1873): Tehama county. In Calif. state agr. soc. Trans. 1873, p.262 (Ventura county, p.265); in Calif. Surveyor gen. Bien. rept. 1871/73, p.92 (Ventura county, p.95; County assessors)

1873: state and county. In Calif. state agr. soc. Trans. 1874, p.224-225; in Calif. Surveyor gen. Bien. rept. 1873/75, p.44-45 (County assessors)

1874: state and county. In Calif. state agr. soc. Trans. 1875, p.136-137; in Calif. Surveyor gen. Bien. rept. 1873/75, p.68-69 (County assessors)

1875: state and county. In Calif. state agr. soc. Trans. 1876, p.110-111; in Calif. Surveyor gen. Bien. rept. 1875/77, p.38-39 (County assessors)

1876: state and county. In Calif. state agr. soc. Trans. 1876, p.132-133; in Calif. Surveyor gen. Bien. rept. 1875/77, p.60-61 (County assessors)

1877: state and county. In Calif. state agr. soc. Trans. 1878, p.358-359 (County assessors)

### Irrigating Ditches - Number - Continued

1878: state and county. In Calif. state agr. soc. Trans. 1879, p.244-245; in Calif. Surveyor gen. Bien. rept. 1877/79, p.26-27 (County assessors)

1879: state and county. In Calif. state agr. soc. Trans. 1879, p.266-267; in Calif. Surveyor gen. Bien. rept. 1877/79, p.48-49 (County assessors)

1880(table headed 1879-80): counties. In Calif. Surveyor gen. Rept. 1879/80, p.74-75 (County assessors)

1881(table headed 1880-81): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.70 (County assessors)

1882(table headed 1881-82): counties. In Calif. Surveyor gen. Bien. rept. 1880/82, p.86.

1910: state and county (main ditches on farms; lateral ditches on farms) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

### Irrigation Enterprises and Reservoirs - Number and Capacity

1910: state. In Calif. State bd. agr. Repts. 1911-1918. (Capacity of enterprises given in Repts. 1912-1918)

1912: Sacramento Valley - by reservoir (capacity compared with probable amount available annually from water shed) In Calif. State bd. agr. Repts. 1912, p.205; 1913, p.178 (Number not given)

### Irrigators - Number

1900,1890: state and county (with per cent of increase) In Calif. State bd. agr. Rept. 1911, p.206 (1900 figure includes Indian reservations)

### Number of Farms Irrigated

1900: state, county, and Indian reservations (compared with total number of farms) In Calif. State bd. agr. Rept. 1911, p.221.

1910: state and county. In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

1910(tables headed 1909): counties. In Calif. State bd. agr. Statistical repts. 1914,1915-1918 (U.S.Census)

1910,1900: state (compared with total number of farms; amount and per cent of increase over 1900 is given in some cases) In Calif. State bd. agr. Repts. 1911-1918.

1916: Yuma and Orland projects. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Yuma, Orland, Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Per Cent of Farms Irrigated

1900: state, county and Indian reservations. In Calif. State bd. agr. Rept. 1911, p.221.

1910,1900: state (with increase over 1900) In Calif. State bd. agr. Repts. 1911-1918.

## IRRIGATION - Continued

### Per Cent of Improved Land in Farms Irrigated

1900: state, county and Indian reservations. In Calif. State bd. agr. Rept. 1911, p.221.

1910: state. In Farm management notes for Calif., p.13 (U.S.Census)

1910,1900: state (with increase over 1900) In Calif. State bd. agr. Repts. 1911-1918 (Entry sometimes worded "improved land in farms")

### Per Cent of Land Area Irrigated

1910,1900: state (with increase in per cent over 1900) In Calif. State bd. agr. Repts. 1911-1918 (In Repts. 1912-1918 entry worded "approximate land area of state")

### Per Cent of Land in Farms Irrigated

1910,1900: state (with increase over 1900) In Calif. State bd. agr. Repts. 1912-1918 (Entry worded "land in farms")

### Per Cent of Unirrigable Lands In Irrigation Districts

Calif. Irrigation districts (number of districts also given). In Calif. Agr. exp. sta. Bul. 435, p.92.

### Pumping Plants - Number

Sacramento river between Tehama and Knights landing (table shows type, size, capacity, etc.) In Calif. State dept. engineering. Bien. rept. 1916/18, p.40-41.

1910: state. In Calif. State bd. agr. Repts. 1911-1918 (Horse power also given; pumping capacity given in Repts. for 1912-1918)

1914(at close of season; table headed "since Jan. 1, 1911, with number reported in Irrigation Census of 1910"): various counties and valleys, total (estimated no. installed) In Calif. State dept. engineering. Bul. 1, p.25; in Calif. State dept. engineering. Bien. rept. 1912/14, p.178.

1914,1913(date of survey): Woodland area (no. installed; summary shows year of installation, power, crop being irrigated) In Calif. State dept. engineering. Bul. 1, p.26-28; in Calif. State dept. engineering. Bien. rept. 1912/14, p.179-181.

1919: San Joaquin Valley (classified by drainage basins; total); entire state (number and capacity of pumping plants) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.32 (U.S.Census)

1919,1909: Tulare county (number; capacity gallons per hour; ratio of results for 1919 to those for 1909) In Calif. Dept. public works. Bul. 3, p.57 (U.S.Census)

1921-1916,1912(annual): 3 areas in Tulare county (relative number of plants operating in different years in per cent of the number operating in 1921) In Calif. Dept. public works. Bul. 3, p.58.

Taxes

Effect of power development in connection with storage on the annual district taxes in 5 irrigation districts. (chart showing taxes per acre high valued land; average valued land; taxes storage and power omitted; storage and power included; power omitted; less power revenue) In Calif. Agr. exp. sta. Bul. 435, p.49.

1925-1919(annual): a Calif. irrigation district (taxes paid by irrigated lands; taxes and imputed interest (also given for 1926) per acré assessments levied and assessment plus imputed interest also given semi-annually for 1917-1925 and for 1916) In Calif. Agr. exp. sta. Bul. 435, p.54.

Wells - Number

1891: Calif.; other states in "Arid regions"; total (artesian wells) In Calif. State bd. hort. Annual rept. 1892, p.45.

1910: state (flowing; pumped) In Calif. State bd. agr. Repts. 1911-1918 (Capacity of wells given in Repts. for 1912-1918)

1910: state and county (flowing wells on farms; pumped wells on farms) In Calif. State bd. agr. Repts. 1912-1918 (U.S.Census)

1919: San Joaquin Valley (classified by drainage basins; total); entire state (number and capacity of flowing wells; pumped wells) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.32 (U.S.Census)

1919,1909: Tulare county (number of flowing wells; capacity gallons per hour) In Calif. Div. engineering and irrigation. Bul. 3, p.57 (U.S.Census)

1919,1909: Tulare county (no. of pumped wells; ratio of results for 1919 to those for 1909: capacity gallons per hour) In Calif. Div. engineering and irrigation. Bul. 3, p.57 (U.S.Census)

1924-1921(annual): James irrigation district (number; average discharge and mean and average operating lifts) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.78.

Miscellaneous

1914-1902(annual): Turlock irrigation district (relation of land settlement to price conditions - chart showing no. of parcels of land settled in relation to relative prices all commodities - first differences) In Calif. Agr. exp. sta. Bul. 435, p.26.

1919: Imperial, Modesto, Turlock irrigation districts (average investment in land; buildings; motive power; livestock; machinery; average per acre; average size of farm; gross output of district per acre; per farm) In Calif. Agr. exp. sta. Rept. 1919/20, p.81.

1920(Sept.1, date of tabulation of data): state (area for which agricultural permits have been issued; area of applications for water rights; water power-possible development of, applications for and permits issued. In Calif. State water comm. 3d Bien. rept. 1918/20, p.16.

## IRRIGATION - Continued

Miscellaneous - Continued

1920-1909(annual): chart showing the relation of annual acreage increase in Calif. irrigation and reclamation districts to average monthly interest rates on 60 to 90 day paper in N.Y.City (deviations from normal trend shown) In Calif. Agr. exp. sta. Bul. 435, p.29.

1924: 62 districts (percentage of ultimate construction completed by irrigation districts) In Calif. Agr. exp. sta. Bul. 435, p.41.

1926: effect of power development in connection with storage on debts in irrigation districts (chart showing per acre debt of high valued land; average valued land; debt without storage and power; with storage and power added; debt if power were omitted; agr. irrigation debt) In Calif. Agr. exp. sta. Bul. 435, p.43.

1926(Jan.,April 1),1925(Jan.1),1923(Jan.,Aug.1),1922(Jan.1),1919(May): net worth and increase in 7 years of one farmer in San Joaquin Valley. In Calif. Agr. exp. sta. Bul. 435, p.77.

## RECLAMATION AND DRAINAGE

Cost of Drain Tile

Quotations and weights of clay drain tile as furnished by one of the Calif. factories making drain tile exclusively. In Calif. Agr. exp. sta. Circ. 174 [Sept.1917] p.28.

Table given as a general guide to price of clay and of concrete drain tile at the factory; concrete tile. In Calif. Agr. exp. sta. Circ. 304 [Mar. 1926] p.37.

Cost of Drainage

Approximate cost of installing 2 typical San Joaquin Valley plants for drainage. In Calif. Agr. exp. sta. Bul. 382, p.33.

1913: Kearney Vineyard (near Fresno) cost of constructing an experimental drain including material and labor; and maintenance and repair costs for the first 3 years. In Calif. Agr. exp. sta. Bul. 273, p.108,109,112,113.

Farm Land Provided With Drainage

1920: state and county (acreage provided with drainage; acreage reported as needing drainage - classified also as acreage needing drainage only; drainage and clearing) In Calif. State bd. agr. Statistical rept. 1921, p.34-35.

Number of Farms Reporting Drainage

1920: state and county (also gives farms needing drainage; farms in drainage and levee districts and total number of all farms) In Calif. State bd. agr. Statistical rept. 1921, p.34-35.

Reclamation Districts

1925-1865(by 10-year periods): Sacramento Valley, Delta areas, combined areas (chart showing acreage included in reclamation, levee and drainage districts) In Calif. Agr. exp. sta. Bul. 435, p.13.

## Reclamation Projects Commenced

1910: 3 counties - name of project (estimated acreage, expenditures, per cent of completion) In Calif. State bd. agr. Rept. 1911, p.213.

## Tile Required to Drain an Acre of Land

Tile required when spaced given distances apart. In Calif. Agr. exp. sta. Circ. 174 [Sept.1917] p.13.

# CROPS GROWN UNDER IRRIGATION

## Acreage Irrigated

1877-78(irrigating season): Canals of Mussel Slough Country (crops raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1888,1880: San José Creek irrigation (summer crops and total area cultivated) In Calif. Office state engineer. Rept. on irrigation and the irrigation question, v.2, p.486.

1891: Calif.; other states in "Arid region"; total irrigated acreage under cultivation. In Calif. State bd. hort. Annual rept. 1892, p.45.

1914: Federal reclamation projects including 3 in Calif. (cropped acreage) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.29 (Comp. from 14th Annual rept. of Reclamation service)

1916: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical rept. 1916, p.200; 1917, p.221.

1916: Yuma and Orland projects (total cropped acreage less duplicated areas) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1917: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical rept. 1918, p.245.

1918: Klamath project (total cropped acreage); Orland project (miscellaneous crops) In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: southern Calif. irrigation companies (total acres irrigated) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, appendix following p.62.

1918: Yuma and Orland projects (total cropped acreage less duplicated areas) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1920(?): areas irrigated by Kaweah river ditches, Tulare county (field crops; total of alfalfa, orchard and vines, field crops, and wild pasture) In Calif. Dept. public works. Bul. 3, p.51.

1920: 6 areas dependent on the run-off of Kaweah river, Tulare county, total areas. (miscellaneous crops including pasture) In Calif. Dept. public works. Bul. 3, p.55.

Acreage Irrigated - Continued

1921: areas dependent on Tule river for water supply (miscellaneous crop area; total crop area classified by sources of water supply; total area; areas diverting from Tule river, total area (irrigation by ditches of miscellaneous crops); areas dependent on Tule river for water supply; total of all areas (miscellaneous crop area; total crop area irrigated by pumping) In Calif. Dept. public works. Bul. 3, p.119,121,126. Total crop area irrigated by pumping also on p.127.

1921: area in southwestern portion of Tulare county (misc. crop acreage; total crop acreage) In Calif. Dept. public works. Bul. 3, p.154.

1921: Deer Creek area (4 sections and total); White Creek area (3 sections and total)(miscellaneous crop area; total crop area) In Calif. Dept. public works. Bul. 3, p.147,153 (Total crop area also on p.148)

1922(?): numerous irrigation systems (area of alfalfa, trees and vines, grain, miscellaneous crops expressed in per cent of total irrigated area) In Calif. Dept. public works. Bul. 6, p.117-169.

1922: individual districts in northern, central, southern Calif. (acreage of miscellaneous crops; total crops) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 8, following p.16.

1922: mutual water companies in northern, central, southern Calif. (acreage of miscellaneous crops; total crops) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17,18, following p.26.

1923: private electric pumping plants in central Calif. (fruit, truck, alfalfa acreage of individual crops; acreage of combinations of crops) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 32, following p.54.

1924: Delta, reclamation districts of Sacramento Valley, irrigation districts, total (acreage used for fruit, general crops, grain, pasture, rice, total; use of unirrigated land for dry farm fruit, dry general crops, dry grain, idle, total) In Calif. Agr. exp. sta. Bul. 435, p.20,21.

1924(?): Delta Uplands and Lower San Joaquin area above the delta. (total acreage of crops irrigated - alfalfa, beans, corn, fruit, grain, etc.) In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: individual districts in Sacramento and San Joaquin - Mokelumne deltas, total (total acreage of crops irrigated - vegetables, fruits, hay, grain, seed and pasture) In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924(?): irrigation and reclamation districts of Calif. (acreage classified according to condition of crop - good, fair, poor and total crops, also expressed in percentage of whole) In Calif. Agr. exp. sta. Bul. 435, p.21.

## CROPS GROWN UNDER IRRIGATION - Continued

Acreage Irrigated - Continued

1924: irrigated by individual irrigating companies of northern, central, southern Calif. (miscellaneous crops; total crops) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table I following p.10.

1924: lower unit in Reclamation district no. 999 (total acres of crops - vegetables, barley, seed crops, sugar beets - inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190.

1924: numerous water users of the district from Sacramento, San Joaquin (general crops - tables also give the monthly water diversion in acre feet from March to Oct. and total diversion) In Calif. Dept. public works. Div. water rights. Bul. 4, p. 124-128,153-156,160.

1924: Sacramento delta; San Joaquin-Mokelumne delta; total (acreage of crops irrigated - vegetables, fruit, hay, grain seed and pasture) In Calif. Dept. public works. Div. water rights. Bul. 4, p.183; acreage classified by general soil types and average period of irrigation in table 38, p.184.

1925: area above the East side canal (gardens; field crops; misc. crops; total; per cent of total area) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.119 (Crop census)

1925(season): lower unit of Reclamation district 999 (total crop acreage - including orchard, alfalfa, vegetables, seed and vineyards) In Calif. Dept. public works. 3d. Bien. rept. 1924/26, pt. 3, p.128.

1925-1921(annual): Calif. irrigation district (est. of irrigated area in alfalfa, trees and truck, beans and corn, pasture, total; total assessed area; estimated unirrigated; area in barley, wheat, grain or hay, idle or unaccounted for, total) In Calif. Agr. exp. sta. Bul. 435, p.53.

1925,1924: Sacramento - San Joaquin diversions (general crops) In Calif. Dept. public works. 3d. Bien. rept. 1924/26, pt. 3, p.92.

1926,1925: Sacramento-San Joaquin Delta (total of alfalfa, fruit, vegetables, grain, hay, etc.) In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Duty of Water for Irrigation

Dates range from 1899 to 1912: miscellaneous crops - summary shows year, acreage, kind of crop, location and source of supply and depths of water applied. In Calif. State dept. engineering. Bul. 1, 1912-1914, p.44-45; in its Bien. rept. 1912/14, p.197-198.

Kaweah River delta (seasonal use of water for mixed crops - estimated per cent of total use for the season occuring in each month from given number of pumps serving; weighted mean for all crops) In Calif. Div. engineering and irrigation. Bul. 3, p.96.

## CROPS GROWN UNDER IRRIGATION - Continued

### Value

1914: Federal reclamation projects - including 3 in Calif. (value of crops) In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.29 (Comp. from 14th Annual rept. of Reclamation service)

1916: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical repts. 1916, p.200; 1917, p.221.

1916: Yuma and Orland projects (total cropped acreage) In Calif. State bd. agr. Statistical rept. 1917, p.222-223. (Estimated additional revenue derived from pasturing alfalfa and stalk lands and feeding alfalfa straw after threshing also given for Yuma project)

1917: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical rept. 1918, p.245.

1918: Yuma, Orland, Klamath projects (total cropped acreage; miscellaneous crops, also for Orland) In Calif. State bd. agr. Statistical rept. 1918, p.247-248. (Estimated additional revenue derived from alfalfa and straw and pasturing stock lands also given for Yuma project)

### Value Per Acre

1914: individual Federal reclamation projects, including 3 in Calif. In Calif. Comm. on land colonization and rural credits. Rept. 1916, p.29 (Comp. from 14th Annual rept. of Reclamation service)

1916: Yuma and Orland projects (total cropped acreage) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1917: Calif.; other states; U.S. (classified by project) In Calif. State bd. agr. Statistical rept. 1918, p.245.

1918: Yuma, Orland, Klamath projects (total cropped acreage; miscellaneous crops, also for Orland) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Yield Per Acre

1923: Kearney Park (an extensive test of yields of green matter (legumes - mat bean, cowpea, soybeans) with irrigation, without irrigation) In Calif. Agr. exp. sta. Bul. 396, p.21.

## BROOM CORN

### Acreage Irrigated

1877-78(irrigating season): acres in cultivation by canals of Mussel Slough country (broom corn raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

## BROOM CORN - Continued

Production, Value and Yield Per Acre

1918: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

## CANE AND CANE FODDER

Acreage, Production, Value and Yield Per Acre

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

## COTTON

Acreage Irrigated

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

1925: area above the East side canal (per cent of total area also given) In Calif. Dept. public works. Div. engineering and water rights. Bul. 11, p.119 (Crop census)

Production, Value and Yield Per Acre

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project (Egyptian cotton; short cotton; value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

## COTTON SEED

Acreage

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

Production and Value

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

Yield Per Acre

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

## FRUITS

Acreage Irrigated

1877-78(irrigating season): canals of Mussel Slough Country (orchards raised by irrigation) In Calif. Dept. engineers. Rept. of State engineer to legislature, session 1880, appendix C, p.136.

Acreage Irrigated - Continued

1880: Riverside Colony (citrus and deciduous orchards) In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

1888,1880: San José Creek irrigation (orchards) In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.486.

1909: state (orchard fruits) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma and Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247.

1920(?): area irrigated by Kaweah River ditches, Tulare county (orchards and vines) In Calif. Dept. public works. Bul. 3, p.51.

1920: 6 irrigated areas dependent on the run-off of Kaweah River, Tulare county, total area (orchards and vines) In Calif. Dept. public works. Bul. 3, p.55.

1921: areas dependent on Tule River for water supply (classified by sources of water supply; total); areas diverting from Tule River, total area (irrigation by ditches); areas dependent on Tule River for water supply, total of all areas (irrigated by pumping)(orchards and vines) In Calif. Dept. public works. Bul. 3, p.119, 121,126.

1921: Deer Creek area (4 sections and total); White Creek area (2 sections and total)(orchards) In Calif. Dept. public works. Bul. 3, p.147, 153.

1922: Durham State Land Settlement. In Calif. Dept. public works. 1st Bien. rept. 1921/22 [covers period July 29, 1921 to July 1, 1922] pt. 5, p.20.

1922: private pumping plants in Sacramento Valley (orchards; trees and alfalfa) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 30, following p.52.

1924(?): Delta Uplands and Lower San Joaquin area above the Delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: individual districts in Sacramento and San Joaquin-Mokelumne Deltas, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183; classified by general soil types and average period of irrigation, table 38, p.184.

1925: area above the East Side Canal (per cent of total area also given) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.119 (crop census)

1925(season): lower unit of Reclamation district 999 (including intercropped orchards) In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

Acreage Irrigated - Continued

1926,1925: Sacramento-San Joaquin delta. In Calif. Dept. public works. 3d. Bien. rept. 1924/26, pt. 3, p.94.

Cost of Developing

1920: Merced irrigation district (itemized cost of equipment, buildings, labor, etc. for peach, prune and fig farm) In Calif. Agr. exp. sta. Bul. 435, p.68.

Duty of Water for Irrigation

9 localities, totals and average; grand total (kind of orchard, age of trees, acres, acre-feet and acre feet per acre) In Calif. State dept. engineering. Bul. 5, p.41-43; in Calif. State dept. engineering. Bien. rept. 1916/18, appendix C, p.41-43 (Tables 11 and 12, p.44, give practically the same data for orchards 5 years of age and over)

1916,1913: 6 irrigation systems (Beaumont Land & Water Co. data are for 1913, Lake Hemet Water Co. are an average of several seasons, others are for 1916; kind of orchard, acreage, rainfall and irrigation) In Calif. State dept. engineering. Bul. 5, p.45; in its Bien. rept. 1916/18, appendix C, p.45.

Value

1916: Yuma project (value and value per acre) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma and Klamath projects (value and value per acre) In Calif. State bd. agr. Statistical rept. 1918, p.247.

1924: Sacramento Delta (est. value of fruit saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## CITRUS FRUIT

Acreage Irrigated

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1922: individual districts of northern, central and southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 8, following p.16.

1922: irrigated by individual irrigating companies of northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table I, following p.10.

1922: mutual water companies of northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17, 18, following p.26.

1918: Southern Calif. irrigation companies. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, appendix following p.62.

## Cost of Pumping for Irrigation

1923(?): 4 pumping plants in central Calif. (minimum, maximum cost (annual) of water per acre-foot; per acre; per acre-foot per ft. lift; cost of plant per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 35, p.54.

## Cost of Water for Irrigation

1922: irrigation districts in northern, central, southern Calif., state (minimum, maximum cost per acre and per acre-foot of water, excluding interest on retired bonds) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 13-16, p.21-22.

1922: mutual water companies in northern, central, southern Calif., state (minimum, maximum per acre and per acre-foot cost of water, including interest on value of capital stock) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 23-26, p.32-34.

1922(?): public utilities in northern, central, southern Calif., state. (minimum, maximum per acre and per acre-foot cost of water including interest on capital invested) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 4-7, p.13.

1922: types of enterprise - public utilities; irrigation districts; mutual water companies; private pumping plants (figures for private pumping plants are for 1923)(minimum, maximum per acre and per acre-foot cost) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 37, p.58.

## Duty of Water for Irrigation

Dates range from 1897 to 1914: summary shows year, acreage location and source of supply and depths of water applied. In Calif. State dept. engineering. Bul. 1, 1912-1914, p.42; in Calif. State Dept. engineering. Bien. rept. 1912/14, p.195.

1923,1922,1920,1919: City of Pasadena (duty on old groves) In Calif. Dept. public works. Div. water rights. Bul. 5, p.134.

1925-1913(annual, average): 3 water companies of San Gabriel Valley (acreage of each tract, type of soil, age of trees and number of tracts served given) In Calif. Dept. public works. Div. water rights. Bul. 5, p.127-133.

## Number Trees Cultivated by Irrigation

1885,1882,1881: Riverside Colony. In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

## Production

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

## Seasonal Use of Water for Citrus Fruit

Kaweah River Delta (estimated per cent of total use for the season, occuring in each month from given number of pumps serving) In Calif. Div. engineering and irrigation. Bul. 3, p.96.

## Value and Yield Per Acre

1916: Orland project (value per acre, per unit, and total value) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (value per acre, per unit, and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

# DECIDUOUS FRUIT

## Acreage Irrigated

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Southern Calif. irrigation companies. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, appendix following p.62.

1922: individual districts in northern, central and southern Calif. (trees and vines) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 8, following p.16.

1922: irrigated by individual irrigating companies of northern Calif.; central Calif.; southern Calif. (deciduous trees and vines) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table I, following p.10.

1922: mutual water companies in northern, central, and southern Calif. (trees and vines) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17-18, following p.26.

## Cost of Water for Irrigation

1922: irrigation districts in northern, central, and southern Calif.; state (minimum, maximum cost per acre and per acre-foot of water, excluding interest on retired bonds) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 13-16, p.21-22.

1922: mutual water companies in northern, central, southern Calif.; state (minimum, maximum per acre and per acre-foot cost of water, including interest on value of capital stock) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 23-26, p.32-34.

1922(?): public utilities in northern, central, southern Calif., entire state (minimum, maximum per acre and per acre-foot cost of water including interest on capital invested) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 4-7, p.13.

Cost of Water for Irrigation - Continued

1922: types of enterprise - public utilities; irrigation districts; mutual water companies; private pumping plants (figures for private pumping plants are for 1923)(minimum, maximum per acre and per acre-foot cost) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 38, p.58.

Duty of Water Investigations

Dates range from 1906 to 1914. Summary shows year, acreage, location and source of supply and depths of water applied. Kind of orchard and number of irrigations sometimes given. In Calif. State dept. engineering. Bul. 1, 1912-1914, p.43; in Calif. State dept. engineering. Bien. rept. 1912/14, p.196.

Number of Trees

1885,1882,1881: Riverside colony (cultivated by irrigation) In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

Production

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

Seasonal Use of Water for Fruit

Kaweah River Delta (deciduous orchards and vines - estimated per cent of total use for the season, occuring in each month from given number of pumps serving) In Calif. Div. engineering and irrigation. Bul. 3, p.96.

Value and Yield Per Acre

1916: Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## PRUNES

Acreage Irrigated

1916: Orland project (dried prunes) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (dried prunes) In Calif. State bd. agr. Statistical rept. 1918, p.248.

Cost of Irrigation

1922-1919 (annual; dates of irrigation begun; finished): 6 Santa Clara prune orchards (amount of water applied; size of stream; depths of water applied in inches per acre; cost of water per acre; cost of water per acre-foot) In Calif. Agr. exp. sta. Hilgardia, v.2, no.6, Jan. 1927, p.133-134 (For one of the orchards data given for 1920, 1921 only)

Production, Value and Yield Per Acre

1916: Orland project (dried prunes; value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (dried prunes; value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## SMALL FRUITS

Acreage Irrigated

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

Production

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

Value

1916: Orland project (value and value per acre) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

Yield Per Acre

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

## TROPICAL FRUITS

Acreage Irrigated

1909: state. In Calif. State bd. agr. Repts. 1912-1918.

## VINEYARDS

Acreage Irrigated

1877-78 (irrigating season): canals of Mussel Slough Country (vineyards raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

## VINEYARDS - Continued

Acreage Irrigated - Continued

1885,1880: Riverside Colony. In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

1888,1880: San José Creek irrigation. In Calif. Office state engineer. Rept. on irrigation and the irrigation question, v.2, p.486.

1909: state (grapes) In Calif. State bd. agr. Repts. 1912-1918.

1921: areas dependent on Tule River for water supply (classified by sources of water supply; total); areas diverting from Tule River, total area (irrigation by ditches); areas dependent on Tule River for water supply, total of all areas (irrigated by pumping) In Calif. Dept. public works. Bul. 3, p.119,121,126.

1921: Deer Creek area (4 sections and total); White Creek area (3 sections and total) In Calif. Dept. public works. Bul. 3, p.147,153.

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

Number of Vines Irrigated

1882,1881: Riverside Colony (cultivated by irrigation) In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

## GRAIN

Acreage Irrigated

1920: 6 areas dependent on the run-off of Kaweah river, Tulare county, total areas. In Calif. Dept. public works. Bul. 3, p.55.

1922: individual districts of northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 8, following p.16.

1922: irrigated by individual irrigating companies in northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table I, following p.10.

1922: mutual water companies in northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17,18, following p.26.

1924(?): Delta uplands and Lower San Joaquin area above the delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: individual districts in Sacramento and San Joaquin-Mokelumne Deltas, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total (acreage irrigated; acreage not irrigated) In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183 - acreage classified by general soil types and average period of irrigation given in table 38, p.184.

1926,1925: Sacramento-San Joaquin Delta. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

## Duty of Water Investigations

Dates range from 1906 to 1913: Summary shows year, acreage, location and source of supply and depth of water applied (same data given for corn) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.43; in Calif. State dept. engineering. Bien. rept. 1912/14, p.196.

1913-1914: near Woodland (shows for 1913, acreage of barley, oats and wheat watered, date of irrigation, total depths applied, cost of water per acre, yield per acre irrigated. Yield per acre unirrigated given for 1914) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.21; in Calif. State dept. engineering. Bien. rept. 1912/14, p.174.

# BARLEY

## Acreage Irrigated

1877/78(irrigation season): acres in cultivation by canals of Mussel Slough Country (raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Klamath and Orland projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1924: lower unit of Reclamation district no. 999 (area inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1925(season): lower unit of Reclamation dist. 999. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.128.

## Cost of Irrigation

1912-1910(annual): Davis Univ. farm (cost of irrigation in barley irrigation investigation) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.183.

## Cost of Production

Itemized and total cost of production on alkaline adobe lands including five irrigations on Don Palos Ranch. In Calif. Dept. engineers. Rept. state engineer to legislature, session 1880, appendix D, p.174.

## Duty of Water Investigations

1914-1910(average): Davis university farm (summary of results shows yield in pounds per acre of hay; of grain, values and irrigation cost; depths of water applied and number of irrigations given) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.30; in Calif. State dept. engineering. Bien. rept. 1912/14, p.171.

## BARLEY - Continued

### Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Klamath and Orland projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Value

1912-1910(annual): Davis University farm (value at a given price of barley irrigation investigation) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.133.

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Klamath and Orland projects (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Yield Per Acre

1912-1910(annual): Davis university farm (yield per acre of hay; of grain, results of barley irrigation) In Calif. Dept. of engineering. 3d Bien. rept. 1910-1912, p.133.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Klamath and Orland projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

## CORN

### Acreage Irrigated

1877-78(irrigating season): canals of Mussel Slough Country (Egyptian corn raised by irrigation) In Calif. Dept. engineers. Rept. State engineer to legislature, session 1880, appendix C, p.136.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1913.

1916: Yuma project (Indian corn) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1920: 6 areas dependent on the run-off of Kaweah river, Tulare county, total area. In Calif. Dept. public works. Bul. 3, p.55.

1921: areas dependent on Tule river for water supply (classified by sources of water supply; total) In Calif. Dept. public works. Bul. 3, p.119.

1921: areas diverting from Tule river, total area (irrigation by ditches) In Calif. Dept. public works. Bul. 3, p.121.

1921: areas dependent on Tule river for water supply; total of all areas (irrigated by pumping) In Calif. Dept. public works. Bul. 3, p.126.

Acreage Irrigated - Continued

1921: 4 sections, and total, in Deer Creek area. In Calif. Dept. public works. Bul. 3, p.147.

1921: 2 sections and total, in White Creek area. In Calif. Dept. public works. Bul. 3, p.153.

1921: area in southwestern portion of Tulare county. In Calif. Dept. public works. Bul. 3, p.154.

1924(?): Delta Uplands and Lower San Joaquin area above the delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116.

1924: Sacramento Delta; San Joaquin-Mokelumne Delta; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.183; acreage classified by general soil types and average period of irrigation given in table 38, p.184.

1926,1925: Sacramento-San Joaquin Delta. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Cost of Production

Itemized and total cost of producing corn by irrigation from Kern River. In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix B, p.111.

Duty of Water Investigation

1910,1911,1913,1914(average): Davis university farm (summary of results shows yields of green silage per acre, values and cost of irrigation; depths of water applied and number of irrigations) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.19; in Calif. State dept. engineering. Bien. rept. 1912/14, p.172.

Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

Value

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1924: Sacramento Delta (est. value of corn saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## CORN - Continued

### Yield Per Acre

1916: Yuma project (Indian corn) In Calif. State bd. agr. Statistical rept. 1917, p.222.

## CORN SORGHUM

### Acreage, Production, Value and Yield Per Acre

1916: Yuma project, Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Yuma project, Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

## CORN FODDER

### Acreage, Production, Value and Yield Per Acre

1918: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

## OATS

### Acreage Irrigated

1877/78 (irrigating season): canals of Mussel Slough Country (oats raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

### Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

### Value and Yield Per Acre

1918: Klamath project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## RICE

### Cost of Water for Irrigation

1922: irrigation districts in northern, central, southern Calif., state (minimum, maximum cost per acre and per acre-foot of water, excluding interest on retired bonds) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 13-16, p.21-22.

1922: mutual water companies in northern, central, southern Calif., state (minimum, maximum per acre and per acre-foot cost of water, including interest on value of capital stock) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 23-26, p.32-34.

## RICE - Continued

Cost of Water for Irrigation - Continued

1922(?): public utilities in northern, central, southern Calif.; entire state (minimum, maximum cost of water per acre and per acre-foot, including interest on capital invested) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 4-7, p.13.

Diversion of Water for Irrigation of Rice

1921-1916(average of seasons): 21 projects of varying size in Sacramento Valley (comparisons of amounts of water diverted, based upon various factors; acres irrigated) In Calif. Dept. public works. Div. water rights. Bul. 3, p.54 (Monthly diversion in per cent of total seasonal diversion also p.54)

1921,1920;1919,1920: records of diversion upon identical projects irrigated (in Sacramento Valley?) comparison of amounts of water diverted; acreage irrigated. In Calif. Dept. public works. Div. water rights. Bul. 3, p.55.

Duty of Water

Monthly demand of water in per cent of seasonal demand. monthly, Apr.-Oct. (average of several seasons for 13 rice projects) In Calif. Dept. public works. 1st Bien. rept. 1921/22, pt. 4, p.94.

1918,1917,1916(seasons): rice irrigations in Sacramento Valley (summary of measurements of duty of water, grouped by soil types and total; number of full seasons of observations, area included, depth of water applied and average areas served) In Calif. Dept. public works. Div. water rights. Bul. 3, p.59.

1923-1918(average): Sacramento Valley (summary of field deliveries of water to rice fields, grouped by soil types and total; no. of full season observations, area covered, average depth of water delivered, average area served) In Calif. Dept. public works. Div. water rights. Bul. 3, p.60.

1924(season): 6 fields, Sacramento Valley (table shows acreage, duty of water and yield) In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.146.

1925: 2 fields, Sacramento Valley (table shows acreage, duty of water and yield) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1924/26, p.60.

See also heading Rice in Part II of this Index

## RYE

Acreage and Production

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

## RYE - Continued

### Value and Yield Per Acre

1918: Klamath project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## WHEAT

### Acreage Irrigated

1877/78(irrigating season): canals of Mussel Slough Country (wheat raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Orland, Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Cost of Production

Itemized and total cost, including two irrigations; total value and profit: land near Hills Ferry. In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix D, p.174.

### Duty of Water Investigation

1912-1914(average): Davis University farm (summary of results shows yield in pounds per acre of hay; of grain, values and irrigation cost; depths of water applied and number of irrigations) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.30; in Calif. State dept. engineering. Bien. rept. 1912/14, p.171.

### Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Orland, Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Value and Yield Per Acre

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma, Orland, Klamath projects (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

## HAY

### Acreage Irrigated

1916: Yuma project, Orland project (other than alfalfa) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

## HAY - Continued

### Acreage Irrigated - Continued

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project, Orland project (other than alfalfa) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento delta; San Joaquin-Mokelumne delta; total (acreage irrigated; not irrigated) In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183, acreage classified by general soil types and average period of irrigation given in table 38, p.184.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

### Production, Value and Yield Per Acre

1916: Yuma project, Orland project (hay other than alfalfa; value per acre, unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Yuma, Orland, Klamath projects (hay other than alfalfa; value per acre, per unit, and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

## ALFALFA

### Acreage Irrigated

1877/78(irrigation season): canals of Mussel Slough Country (alfalfa raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1888,1880: San José Creek irrigation. In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.486.

1885,1880: Riverside Colony. In Calif. Office of state engineer. Rept. on irrigation and the irrigation question, v.2, p.221.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1913: farms in Gridley, Los Molinos, Orland, Woodland, Dixon areas. (acreage of alfalfa irrigation investigation) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.19,28,32,51,56.

1913: 47 farms at 5 places (area used for investigations of alfalfa duty of water; acreage given by soil types) In Calif. Dept. engineering. Bul. 1, 1912-1914, p.8-12; in its Bien. rept. 1912/14, p.161-165.

1913: Gridley, Los Molinos, Orland, Woodland, Dixon areas (summary of results of alfalfa water investigations; acreage given by soil types) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, p.19,28,32,51, 56; in its Bul. 3, p.19,28,32,51,56.

Acreage Irrigated - Continued

1914: farms in Los Molinos, Orland, Willows, Woodland areas (acreage of alfalfa irrigation investigation) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.28,33,40,52.

1914: Los Molinos, Orland, Willows, Woodland areas (summary of results of alfalfa water investigations; acreage given by soil types) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, p.28,33,40, 52; in its Bul. 3, p.28,33,40,52.

1914: 38 farms at 4 places (area used for investigation of alfalfa duty of water; acreage given by soil types) In Calif. Dept. engineering. Bul. 1, 1912-1914, p.13-16; in its Bien. rept. 1912/14, p.166-169.

1914,1913: 54 farms (by areas) in Sacramento Valley (acreage of alfalfa irrigation investigation) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.61; in its Bul. 3, p.61.

1915: 4 farms, Willows area (acreage of alfalfa irrigation investigation) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.40; in its Bul. 3, p.40.

1916: Yuma project, Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p.222,223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Southern Calif. irrigation companies. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 3, appendix following p.62.

1918: Yuma project, Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1920(?): areas irrigated by Kaweah River ditches, Tulare county. In Calif. Dept. public works. Bul. 3, p.51.

1920: 6 irrigated areas dependent on the run off of Kaweah river, Tulare county; total area. In Calif. Dept. public works. Bul. 3, p.55.

1921: area dependent on Tule River for water supply (classified by sources of water supply, total acres); areas diverting from Tule River, total area (irrigation by ditches); areas depending on Tule River for water supply (irrigated by pumping) In Calif. Dept. public works. Bul. 3, p.119,121,126.

1921: Deer Creek area (4 sections and total); White Creek area (3 sections and total); area in southwestern portion of Tulare county. In Calif. Dept. public works. Bul. 3, p.147,153-154.

1922: individual districts in northern, central and southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 8, following p.16.

1922: irrigated by individual irrigating companies in northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table I, following p.10.

1922: mutual water companies in northern, central, southern Calif. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 17, 18, following p.26.

ALFALFA - Continued

Acreage Irrigated - Continued

1922: private pumping plants in Sacramento Valley (alfalfa; alfalfa and trees; alfalfa and pasture) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 30, following p.52.

1924(?): Delta Uplands and lower San Joaquin area above delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: lower unit of Reclamation district no. 999 (area inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in Rept. 1922/24, p.150.

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento and San Joaquin-Mokelumne Deltas; individual districts. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183; classified by general soil types in table 38, p.184; average period of irrigation given on p.184.

1925: area above the East Side canal (per cent of total area also given) In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.119 (Crop census)

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

1926: San Gabriel Valley, San José Valley, total, San Dimas Basin. In Calif. Dept. public works. Div. water rights. Bul. 5, p.30,51.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Cost of Production

1912-1910(annual): Davis University farm (summary of results of alfalfa investigations with different quantities of water) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.182.

1914: Woodland, Los Molinos, Orland, Willows; total average (annual cost of irrigation per acre; total cost of handling crop, per ton of hay; total seasonal cost of handling per acre; total of all irrigation and handling per acre) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.74; in its Bien. rept. 1912/14, p.183-184; in its Bul. 1, p.30-31; in its Bul. 3, p.74.

1914-1910(annual; 5 year average): Davis University farm (investigation of duty of water for alfalfa; depth water applied given) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.18; in its Bien. rept. 1912/14, p.171.

1915-1910(6 year average): Davis University farm (summary of results of alfalfa irrigation investigations with different quantities of water) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7; in its Bul. 3, p.7.

1923-1922(average): Delhi, Calif. (average cost per acre - different quantities of water) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.88.

ALFALFA - Continued

Cost of Pumping for Irrigation

1923: 3 typical plants in central Calif. (annual cost of water per acre-foot; per acre; per acre-foot per foot lift; cost of plant per acre) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 36, p.55.

Cost of Water for Irrigation

1922: irrigation districts in northern, central, southern Calif.; state (minimum, maximum cost per acre and per acre-foot of water, excluding interest on retired bonds) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 13-16, p.21-22.

1922: mutual water companies in northern, central, southern Calif.; state (minimum, maximum per acre and per acre-foot, cost of water, including interest on value of capital stock) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 23-26, p.32-34.

1922(?): public utilities in northern, central, southern Calif.; entire state (minimum, maximum cost of water per acre and per acre-foot including interest on capital invested) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, tables 4-7, p.13.

1922: types of enterprise - public utilities; irrigation districts; mutual water companies; private pumping plants (figures for private pumping plants are for 1923)(minimum, maximum per acre and per acre-foot cost) In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, table 39, p.60.

Duty of Water for Irrigation

Dates range from 1905 to 1912: (summary shows year, acreage, location source of water supply and depths of water applied. Measurements from given farms or a given number of farms) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.41; in Calif. State dept. engineering. Bien. rept. 1912/14, p.194.

Imperial Valley, Chino (number of crops, rainfall and irrigation (in acre feet) given) In Calif. State dept. engineering. Bul. 5, p.40; in its Bien. rept. 1916/18, appendix C, p.40.

12 tracts, total and average (acres, acre-feet and acre feet per acre) In Calif. State dept. engineering. Bul. 5, p.39; in its Bien. rept. 1916/18, appendix C, p.39.

1912-1910(annual): Davis University farm (profit per acre - summary of results of alfalfa investigations with different quantities of water) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.182.

1914-1910(annual; 5-year average): Davis University farm (investigation of duty of water for alfalfa - net profit per acre; depth water applied) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.18; in Calif. State dept. engineering. Bien. rept. 1912/14, p.171.

## ALFALFA - Continued

### Duty of Water for Irrigation - Continued

1915-1910(6-year average): Davis University farm (profit per acre - summary of results of alfalfa irrigation investigations with different quantities of water) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7; in its Bul. 3, p.7.

1923-1922(average): Delhi, Calif. (summary of results of alfalfa irrigation investigations with different quantities of water) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.83.

### Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1924: lower unit in Reclamation Unit No. 999 (acres inside the levees)(estimated) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

### Seasonal Use of Water for Alfalfa

Kaweah River delta (estimated per cent of total use for the season, occuring in each month from given number of pumps serving) In Calif. Div. engineering and irrigation. Bul. 3, p.96.

### Value

1912-1910(annual): Davis University farm (value of hay at a given price; summary of results of alfalfa investigations with different quantities of water) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.182.

1914-1910(annual; 5-year aver.): Davis University Farm (investigations of duty of water) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.17; in its Bien. rept. 1912/14, p.170 (Price per ton given in foot note)

1915-1910(annual): Davis University Farm (value of hay at a given price; summary of results of alfalfa investigations with different quantities of water) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7.

1916: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p 222-223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

## ALFALFA - Continued

### Value - Continued

1924: Sacramento delta (estimated value of alfalfa saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4,p.216.

1926: Santa Barbara county. In Calif. Dept. agr. Monthly bul. v. 16, Apr. 1927, p.261.

### Value Per Acre

1915-1910(6-year average): Davis University Farm (summary of results of alfalfa investigation with different quantities of water) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7; in its Bul. 3, p.7.

1916: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1923-22(average): Delhi, Calif. (summary of results of alfalfa irrigation investigations with different quantities of water. In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.88.

### Value Per Unit

1916: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

### Yield Per Acre

1912-1910(annual): Davis University Farm (average yields for different quantities of water applied in alfalfa investigations) In Calif. Dept. engineering. 3d Bien. rept. 1910/12, p.182.

1913: farms at 5 places (alfalfa irrigation investigation - number of irrigations; total depth water applied) In Calif. Dept. engineering. Bul. 1, 1912-1914, p.8-12; in its Bien. rept. 1912/14, p.161-165; in its 5th Bien. rept. 1914/16, Appendix C, p.19,28,32,51,56.

1913: Gridley, Los Molinos, Orland, Woodland and Dixon areas (summary of results of alfalfa water investigation - acreage given by soil types) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, p. 19,28,32,51,56; in its Bul. 3, p.19,28,32,51,56.

1914: farms at 4 places (alfalfa irrigation investigation - number of irrigations; total depth water applied) In Calif. Dept. engineering. Bul. 1, 1912-1914, p.13-16; in its Bien. rept. 1912/14, p. 166-169; in its 5th Bien. rept. 1914/16, appendix C, p.28,33,40,52.

Yield Per Acre - Continued

1914: Los Molinos, Orland, Willows, Woodland areas (summary of results of alfalfa water investigations; acreage given by soil types) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, p.28,33,40, 52; in its Bul. 3, p.28,33,40,52.

1914-1910(annual; 5-year average): Davis University Farm (investigations of duty of water) In Calif. State dept. engineering. Bul. 1, 1912-1914, p.17; in its Bien. rept. 1912/14, p.170 (Chart showing yield and depth water applied in Bul. 1, following p.18; in Bien. rept. following p.170)

1914,1913: 54 farms by areas in Sacramento Valley (alfalfa irrigation investigation; average rainfall; total depth of water applied) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p. 61; in its Bul. 3, p.61.

1915-1910(annual, 6-year average): Davis University Farm (summary of results of alfalfa investigation with different quantities of water) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7; in its Bul. 3, p.7, chart p.8.

1915-1910(annual; 6-year average): Davis University Farm (average yields for different quantities of water applied in alfalfa investigations) In Calif. Dept. engineering. 5th Bien. rept. 1914/16, appendix C, p.7, chart showing yields p.8.

1916: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Yuma project; Orland project (alfalfa hay) In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1920-1918(annual, average): College of agriculture (summary of yields with seasonal application of water per annum but with different numbers and amounts of individual irrigations) In Calif. State dept. engineering. Bien. rept. 1919-1920, p.114.

1923-1922(annual, average): Delhi, Calif. (various plots) - (no. of irrigations; depth of each irrigation; seasonal application) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1922/24, p.88.

1924-1922(annual, average): Delhi, Calif. (various plots) - (no. of irrigations; depth each irrigation; seasonal application) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1924/26, p.62.

1925: Delhi, Calif. (various plots)(no. of irrigations, seasonal application) In Calif. Dept. public works. Div. engineering and irrigation. Rept. 1924/26, p.63.

## CLOVER

Acreage and Production

1909: state (compared with total acreage; with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## FORAGE (COARSE)

Acreage and Production

1909: state (compared with total acreage, with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## GRAINS CUT GREEN

Acreage and Production

1909: state (compared with total acreage, with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## PASTURE

Acreage Irrigated

1916: Yuma project; Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Yuma, Orland, Klamath projects. In Calif. State bd. agr. Statistical rept. 1918, p.247-248.

1920(?): areas irrigated by Kaweah River ditches, Tulare county (wild pasture) In Calif. Dept. public works. Bul. 3, p.51.

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta; San Joaquin-Mokelumne Delta; total (acreage irrigated; acreage not irrigated) In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183; acreage classified by general soil types and average period of irrigation in table 38, p.184.

1926,1925: Sacramento-San Joaquin Delta. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Value

1916: Yuma project; Orland project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222-223.

1918: Yuma, Orland, Klamath projects (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p. 247-248.

## SUDAN GRASS

Acreage Irrigated

1924(?): Delta Uplands and Lower San Joaquin area above the delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

## TAME OR CULTIVATED GRASSES

Acreage and Production

1909: state (other than timothy, clover and alfalfa)(compared with total acreage; total production per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## TIMOTHY AND CLOVER

Acreage and Production

1909: state (compared with total acreage, with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918. (Data also given for timothy alone)

## WILD, SALT OR PRAIRIE GRASSES

Acreage and Production

1909: state (compared with total acreage, with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## MELONS

Acreage Irrigated

1925: area above the East Side Canal. In Calif. Dept. public works. Div. engineering and irrigation and water rights. Bul. 11, p.119. (Crop census)

## NURSERIES

Acreage Irrigated

1916: Orland project. In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

Value

1916: Orland project (value per acre, total value) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (value per acre, total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## NUTS

Acreage, Production, Value, and Yield Per Acre

1909: state (acreage only) In Calif. State bd. agr. Repts. 1912-1918.

1916: Orland project (dried almonds; value per acre, per unit, and total value) In Calif. State bd. agr. Statistical rept. 1917, p.223.

1918: Orland project (dried almonds; value per acre, per unit, and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

### Duty of Water for Irrigation

Amount of irrigation water necessary for walnuts. In Calif. Agr. exp. sta. Bul. 332, p.150; 379, p.13.

1923-1921(annual; average): La Puente Cooperative water co. (acreage in tracts served and type of soil given) In Calif. Dept. public works. Div. water rights. Bul. 5, p.134.

## SEED CROP

### Acreage Irrigated

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: lower unit of Reclamation district no. 999 (acres inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.113; in its Bul. 4, p.183; acreage classified by general soil types and average period of irrigation in table 38, p.184.

1925(season): lower unit of Reclamation district 999. (commercial seed) In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.128.

1926,1925: Sacramento-San Joaquin Delta. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.94.

## ALFALFA SEED

### Acreage and Production

1909: state (compared with total acreage, with total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

### Value

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

### Yield Per Acre

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

## SUGAR BEETS

### Acreage and Production

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1924: lower unit of Reclamation district no. 999 (area inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

### Value and Yield Per Acre

1918: Klamath project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

## VEGETABLES

### Acreage Irrigated

6 Chinese gardens in Kern county (amount and cost of water and period of irrigation) In Calif. Dept. engineers. Rept. state engineers to legislature, Session 1880, appendix B, p.86.

1877-78(irrigating season): Canals of Mussel Slough Country (vegetables raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1916: Yuma project (truck crops, p.222; gardens, p.223) In Calif. State bd. Statistical rept. 1917, p.222.

1918: Orland and Klamath projects (gardens) In Calif. State bd. agr. Statistical rept. 1918, p.248.

1918: Southern Calif. irrigation companies; truck and miscellaneous crops. In Calif. Dept. public works. Div. engineering and irrigation. Bul. 8, appendix following p.62.

1918: Yuma project (truck crops) In Calif. State bd. agr. Statistical rept. 1918, p.247.

1924(?): Delta Uplands and Lower San Joaquin area above the Delta (miscellaneous vegetables) In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento delta; San Joaquin-Mokelumne delta; total (miscellaneous vegetables) In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116; in its Bul. 4, p.183. Acreage classified by general soil types and average period of irrigation given in table 38, p.184 of Bul. 4.

1924: Sacramento delta (miscellaneous vegetables; seed vegetables benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento delta (acreage benefited by water conservation work - total crops - mainly vegetables) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## VEGETABLES - Continued

### Acreage Irrigated - Continued

1926,1925: Sacramento-San Joaquin deltas (truck and miscellaneous vegetables) In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

### Production

1924: Sacramento Delta (est. value of total crops - chiefly vegetables - saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

### Value (Total and Per Acre)

1916: Yuma project (truck crops, p.222; gardens, p.223) In Calif. State bd. agr. Statistical rept. 1917, p.222,223.

1918: Yuma project (truck crops, p.247; gardens, p.248) In Calif. State bd. agr. Statistical rept. 1918, p.247,248.

1924: Sacramento Delta (est. value of misc. vegetables; seed vegetables saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## ASPARAGUS

### Acreage Irrigated

1924: lower unit of reclamation district no. 999 (area inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento Delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento and San Joaquin-Mokelumne deltas; individual districts. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento delta; San Joaquin-Mokelumne delta; total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p. 116; in its Bul. 4, p.183; acreage classified by general soil types and average period of irrigation, table 38, p.184.

1925(season): lower unit of Reclamation district 999 (including intercropped asparagus) In Calif. Dept. public works. Div. water rights. 1924/26, p.128.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.94.

### Value

1924: Sacramento Delta (est. value of asparagus saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## BEANS

### Acreage Irrigated

1877-78(irrigating season): canals of Mussel Slough Country (beans raised by irrigation) In Calif. Dept. engineers. Rept. state engineer to legislature, session 1880, appendix C, p.136.

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

1924(?): Delta Uplands and lower San Joaquin area above the delta. In Calif. Dept. public works. Div. water rights. Bul. 4, p.161.

1924: lower unit of Reclamation district no. 999 (area inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento Delta, San Joaquin Delta, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.183; Acreage classified by general soil types and period of irrigation given in table 38, p.184.

1924: Sacramento and San Joaquin-Mokelumne deltas; individual districts. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p.116.

1925(season): lower unit of Reclamation district 999 (all varieties) In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.128.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.94.

### Cost of Growing and Marketing

Average cost per acre of growing and marketing beans, comparing three systems - (dry farming; sub-irrigation; surface irrigation) of management practiced in California (itemized costs, gross value and net returns) In Calif. Agr. exp. sta. Bul. 294, p.339.

### Production

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

1924: lower unit in Reclamation district no. 999 (acres inside the levees)(est. production) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

### Value

1916: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1917, p.222.

## BEANS - Continued

Value - Continued

1918: Yuma project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.247.

1924: Sacramento Delta (est. value of beans saved by water conservation) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

Yield Per Acre

1916: Yuma project. In Calif. State bd. agr. Statistical rept. 1917, p.222.

1918: Yuma project. In Calif. State bd. agr. Statistical rept. 1918, p.247.

## DRY EDIBLE BEANS

Acreage and Production

1909: state (compared with total acreage and production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## BEETS

Acreage Irrigated

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento and San Joaquin-Mokelumne deltas; individual districts. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p. 116; in its Bul. 4, p.183; Acreage classified by general soil types and average period of irrigation given in table 33, p.184.

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

1926,1925: Sacramento-San Joaquin delta. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Value

1924: Sacramento Delta (estimated value of beets saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## CELERY

Acreage Irrigated

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

## CELERY - Continued

Acreage Irrigated - Continued

1924: lower unit of Reclamation district no. 999 (acres inside of levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p. 116; in its Bul. 4, p.183; Acreage classified by general soil types and average period of irrigation in table 38, p.184.

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

1926,1925: Sacramento-San Joaquin Delta. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.94.

Value

1924: Sacramento Delta (estimated value of celery saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## CUCUMBERS

Acreage Irrigated

1924: lower unit of Reclamation district no. 999 (acres inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

## ONIONS

Acreage Irrigated

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas, total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: lower unit of Reclamation district no. 999 (acres inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento Delta, San Joaquin-Mokelumne Delta, and total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p. 116; in its Bul. 4, p.183; Acreage classified by general soil types and average period of irrigation in table 38, p.184.

1925(season): lower unit of Reclamation district no. 999. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.128.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.94.

## ONIONS - Continued

### Production

1924: lower unit in Reclamation district no. 999 (acres inside the levees)(estimated production) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

### Value

1924: Sacramento Delta (estimated value of onions saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

## PEAS

### Acreage Irrigated

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

## PEAS, DRY

### Acreage and Production

1909: state (compared with total acreage; total production; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

## POTATOES

### Acreage Irrigated

1877-78(irrigating season): canals of Mussel Slough Country (potatoes raised by irrigation) In Calif. Dept. engineers. Rept. of state engineer to legislature, session 1880, appendix C, p.136.

1909: state (compared with total acreage; per cent of total acreage) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1924: individual districts in Sacramento and San Joaquin-Mokelumne deltas; total. In Calif. Dept. public works. Div. water rights. Bul. 4, p.180-182.

1924: lower unit of Reclamation district no. 999 (acres in levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

1924: Sacramento delta (acreage benefited by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

1924: Sacramento delta; San Joaquin-Mokelumne delta; total. In Calif. Dept. public works. Div. water rights. Rept. 1922/24, p. 116; in its Bul. 4, p.183; Acreage classified by general soil types and average period of irrigation in table 38, p.184.

1925(season): lower unit of Reclamation district 999. In Calif. Dept. public works. 3d Bien. rept. 1924/26, pt. 3, p.128.

1926,1925: Sacramento-San Joaquin deltas. In Calif. Dept. public works. Div. water rights. Rept. 1924/26, p.94.

## POTATOES

### Production

1909: state (compared with total production) In Calif. State bd. agr. Repts. 1912-1918.

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

1924: lower unit in Reclamation district no. 999 (acres inside the levees) estimated. In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

### Value

1918: Klamath project (value per acre, per unit and total value) In Calif. State bd. agr. Statistical rept. 1918, p.248.

1924: Sacramento Delta (estimated value of potatoes saved by water conservation work) In Calif. Dept. public works. Div. water rights. Bul. 4, p.216.

### Yield Per Acre

1918: Klamath project. In Calif. State bd. agr. Statistical rept. 1918, p.248.

## TOMATOES

### Acreage Irrigated

1924: lower unit of Reclamation district no. 999 (acres inside the levees) In Calif. Dept. public works. Div. water rights. Bul. 4, p.190; in its Rept. 1922/24, p.150.

# INDEX

Page

Acreage
  References to acreage are included in the text of the bibliography under the name of the item.
Adams, Richard Laban............ VII
Agricultural land............5,20-21
Alfalfa.......................104-110
  seed......................... 113
Almond land................... 31
Almonds....................... 112
Asparagus..................... 115

Barley.........................98-99
Beans.........................116-117
  dry edible................... 117
Beets......................... 117
  See also Sugar beets
Broom corn.....................89-90
Buildings
  See Farm buildings; Farm land and buildings

California. Agricultural experiment station..........VII-IX
California. Alaska-Yukon-Pacific exposition commission...................... IV
California. Board of commissioners of transportation......................XXXI
California. Board of railroad commissioners........XXIX
California. Board of state harbor commissioners.................... XX
California. Bureau of labor statistics........XXIII-XXIV
California. Commission of immigration and housing................XXII-XXIII
California. Commission on land colonization and rural credits..........XXIV-XXV
California. Commission on revenue and taxation.......XXIX

Page

California. Commissioner of transportation..............XXXI
California. Cooperative crop reporting service.......XV-XVI
California. Department of agriculture...............IX-XII
California. Department of engineering...........XVII-XVIII
California. Department of public works. Division of engineering and irrigation...............XXVI-XXVII
California. Department of public works. Division of land settlement.....XXVII-XXVIII
California. Department of public works. Division of water rights.........XXVIII-XXIX
California. Division of engineering and irrigation.
  See California. Department of public works. Division of engineering and irrigation.
California. Engineer department...................... XVI
California. Office of state engineer.............XVI-XVII
California. Lewis and Clarke exposition commission....................... IV
California. Louisiana purchase exposition commission........................ IV
California. Railroad commission..............XXVIII-XXIX
California. Secretary of state.......................XXIX
California. State board of agriculture.............XII-XIII
California. State board of control..................... XIV
California. State board of equalization...........XVIII-XIX

Page

California. State board of horticulture............XX-XXII
California. State commission of horticulture.......XXII
California. State conservation commission.......... XIV
California. State controller.................... XIV
California. State department of engineering.
  See California. Department of engineering.
California. State department of engineers.
  See California. Engineer department.
California. State land settlement board.........XXV-XXVI
California. State tax commission................ XXX
California. State water commission..................XXXIV
California. Surveyor general...................... XXX
California census of 1852.......XXIX
California crop and livestock report........IX,X-XI,XV-XVI
California state agricultural society.
  See California. State board of agriculture.
Cane and cane fodder............ 90
Celery.........................117-118
Children engaged in agriculture.................. 55
Chinese
  See Orientals
Citrus fruit
  See Fruits, citrus
Clover........................... 110
  See also Timothy and clover
Cocoons
  See Silk cocoons
Cooperative buying and selling...................... 63
Corn...........................99-101
  fodder........................ 101
  sorghum....................... 101

Page

Cost of production
  alfalfa........................ 106
  barley......................... 98
  beans.......................... 116
  corn........................... 100
  wheat.......................... 103
Cotton........................... 90
  seed........................... 90
Crops............................ 13
  grown under irrigation.......86-120
Cucumbers........................ 118
Cultivators
  See Plows and cultivators

Dairy products................... 14
Delhi state land settlement.....................13-17
Drainage
  See Reclamation and drainage
Durham state land settlement.....................13-17

Enos, John Summerfield...........XXIV
Evaporators...................... 48
Exports
  See Shipments

Farm buildings..................33-34
Farm business summaries.........14-16
Farm land.................13,21-31,85
Farm land and buildings.........32-33
  See also Farm buildings
Farm management notes for California.................VII
Farm manufactures................ 63
Farm property...................34-35
Farmers.........................53-54
Farms..................36-42,51,82,85
  dairy.......................... 41
  experimental................... 37
  family......................... 14
  poultry........................ 42
Fences..........................35-36
Fertilizers...................... 64
Fodder
  See Cane and cane fodder; Corn, fodder
Forage (coarse).................. 111

Page

Forest products of the
  farm............................ 35
Freight rates
  grain derricks.................. 48
  implements and machinery...... 43
  plow points................... 49
  separators.................... 50
Fruits.........................90-92
  citrus.......................92-94
  deciduous....................94-95
  small......................... 96
  tropical...................... 96
  See also names of fruits

Grain.........................97-103
  cut green..................... 111
Grain cutters................... 48
Grain derricks.................. 48
Grain land
  See Hay and grain land
Grasses
  Sudan......................... 111
  tame or cultivated............ 111
  wild, salt or prairie......... 112
Grazing land...............5,31-32

Hay..........................103-112
Hay and grain land.............. 32
Hay presses..................... 49
Hindus
  See Orientals

Implements and machinery.......42-51
Imports. References to
  imports are included in
  the text of the bibliography under the name of
  the item.
Improvements
  Delhi and Durham land
  settlements................... 16
  See Land and improvements
Indian reservations......17,18,19,24
                    30,34,47,73,82
Insects, beneficial............ 65
Irrigation.........19-20,22,28,66-85
  crops grown under
  irrigation..................86-120

Page

Japanese
  See Orientals

Labor.......................16,54-63
Land..........................1-8,16
  agricultural...............5,20-21
  almond........................ 31
  farm
    See Farm land
  grazing....................5,31-32
  hay and grain................. 32
  Indian
    See Indian reservations
  orchard....................... 32
  pasture....................... 32
  plow.......................... 31
  public.......................18-20
  swamp and overflowed.......... 20
  wheat......................... 22
  woodland.....................29,32
  See also Irrigation
Land and improvements...........8-13
Land in original homestead
  entries....................... 17
Land settlements...............13-17
Livestock....................... 14
Los Angeles. Board of harbor
  commissioners...............XL-XLI

Melons.......................... 112
Mexicans........................ 55
Mortgage Debt..................51-52

Nurseries....................... 112
Nuts.........................112-113

Oats............................ 101
Onions.......................118-119
Orchard land.................... 32
Orientals.............26-27,29,30
                  39,40,41,55,57
                  58,60,61,70,114

Pasture......................... 111
  land.......................... 32
Peas............................ 119
  dry........................... 119
Planters and seeders............ 49

Page

Plow land........................ 31
Plow points...................... 49
Plows and cultivators............ 49
Population....................... 53
Potatoes.....................119-120
Production.
  References to production
  are included in the text
  of the bibliography under
  the name of the commodity.
Prunes..........................95-96
Public land.....................18-20
Purchasing power of farm
  products....................... 17
Purchasing power of farm
  wages.......................... 62

Ranches.......................... 42
Reclamation and drainage........85-86
Refrigeration machine............ 49
Rice.........................101-102
Rye..........................102-103

Seeders
  *See* Planters and Seeders
Seeds........................... 113
Separators....................... 50
Settlements
  *See* Land settlements
Shipments.
  References to shipments
  are included in the text
  of the bibliography under
  the name of the item.
Sickles.......................... 50
Silk cocoons....................65-66
Silos............................ 50
Sorghum, Corn
  *See* Corn sorghum

Page

Spray plants..................... 50
Sudan grass..................... 111
Sugar beets..................... 114
Swamp and overflowed
  land........................... 20

Tame or cultivated grasses...... 111
Taxes........................52-53,84
Threshing machines............... 50
Timothy and clover.............. 112
  *See also* Clover
Tomatoes........................ 120
Tractors......................... 50

Value.
  References to value are
  included in the text of
  the bibliography under
  the name of the item.
Vegetables...................114-120
Vineyards.......................96-97

Wages...........................58-62
Walnuts......................... 113
Warehouses....................... 51
Wheat........................... 103
  land........................... 22
Wild, salt or prairie
  grasses....................... 112
Wine presses..................... 51
Woodland........................29,32

Yield per acre.
  References to yield are
  included in the text of
  the bibliography under
  the name of the commodity.

## ABBREVIATIONS

| | |
|---|---|
| Agr. | Agricultural<br>Agriculture |
| Approx. | Approximate |
| Assoc. | Association |
| Aver. | Average |
| Bd. | Board |
| Bien. | Biennial |
| Bul. | Bulletin |
| Bur. | Bureau |
| Circ. | Circular |
| Co. | Company<br>County |
| Comm. | Commission<br>Commissioners |
| Comp. | Compiled |
| Coop. | Cooperative |
| Dept. | Department |
| Dist. | District |
| Div. | Division |
| Ed. | Edition |
| Est. | Estimate<br>Estimated |
| Exp. | Experiment |
| Ext. | Extension |
| Gen. | General |
| Hort. | Horticultural<br>Horticulture |
| Misc. | Miscellaneous |
| Mos. | Months |
| No. | Number |
| P. | Page |
| Pl. | Plate |
| Proc. | Proceedings |
| Pub. | Publication |
| R.R. | Railroad |
| Rept. | Report |
| Rev. | Revised |
| Soc. | Society |
| Sta. | Station |
| Trans. | Transactions |
| U.S.D.A. | U.S.Department<br>of Agriculture |
| V. | Volume |

## AGRICULTURAL ECONOMICS BIBLIOGRAPHIES

No. 1. Agricultural economics; a selected list of references. January, 1925. Revised September, 1927; February, 1929; April, 1930.

No. 2. Flour milling and bread making; selected list of references. February, 1925. Revised June, 1927.

No. 3. A beginning of a bibliography of the literature of rural life. March, 1925.

No. 4. Price spreads; a selected list of references relating to analyses of the portion of the consumer's price accruing to various agencies. March, 1925.

No. 5. Long-time agricultural programs in the United States - national, regional, and state. June, 1925.

No. 6. Aids to writers and editors; a selected list of books on the preparation of manuscripts and the mechanics of writing, for use in the Bureau of Agricultural Economics. June, 1925.

No. 7. Livestock financing; a selected list of references relating to the financing of the livestock industry in the United States. September, 1925.

No. 8. The peach industry in the United States; a selected list of references on the economic aspects of the industry including some references relating to Canada. October, 1925.

No. 9. Selected list of references on grain sorghums, grass sorghums, and broom corn. December, 1925.

No. 10. Research in rural economics and rural sociology in the southern states since 1920; a list of the published, unpublished, and current studies. January, 1926.

No. 11. Economic periodicals of foreign countries published in the English language; a selected list. February, 1926. Revised March, 1930.

No. 12. Government control of export and import in foreign countries. February, 1926.

No. 13. Cooperative marketing of tobacco; a selected list of references. February, 1926.

No. 14. Factors affecting prices; a selected bibliography, including some references on the theory and practice of price analysis. March, 1926.

No. 15. Alabama; an index to the state official sources of agricultural statistics. March, 1926.

No. 16. Periodicals relating to dairying received in the U. S. Department of Agriculture. June, 1926.

No. 17. Farm youth; a selected list of references to literature issued since January, 1920. October, 1926.

No. 18. Price fixing by governments 424 B.C. - 1926 A. D.; a selected bibliography, including some references on the principles of price fixing, and on price fixing by private organizations. October, 1926.

No. 19. The apple industry in the United States; a selected list of references on the economic aspects of the industry together with some references on varieties. June, 1927.

No. 20. Bounties on agricultural products; a selected bibliography. July, 1927.

No. 21. Oklahoma; an index to the state official sources of agricultural statistics... including a list of the unofficial sources of Oklahoma agricultural statistics. August, 1927.

No. 22. A list of international organizations interested in agriculture. November, 1927.

No. 23. Control of production of agricultural products by governments; a selected bibliography. December, 1927.

No. 24. The poultry industry; a selected list of references on the economic aspects of the industry, 1920-1927. February, 1928.

No. 25. Taxation and the farmer; a selected and annotated bibliography. June, 1928.

No. 26. Labor requirements of farm products in the United States. April, 1929.

No. 27. Agricultural relief; a selected and annotated bibliography. June, 1929.

No. 28. The strawberry industry in the United States; a selected list of references on the economic aspects of the industry. September, 1929.

No. 29. Valuation of real estate, with special reference to farm real estate. November, 1929.

No. 30. Large scale and corporation farming; a selected list of references, November, 1929

No. 31. California; an index to the state sources of agricultural statistics. Part I.- Fruits, vegetables and nuts; an index to the official sources. Sections 1 and 2. January, 1930; Part II.- Crops other than fruits, vegetables and nuts; an index to the official sources. June, 1930; Part III.- Livestock and livestock products; an index to the official sources. January, 1931; Part IV.- Land, farm property, irrigation, and miscellaneous items; an index to the official sources. April, 1931; Part V.- An index to some unofficial sources. February, 1930.

No. 32. Rural standards of living; a selected bibliography. August, 1930.